CUMBERLAND PLATEAU

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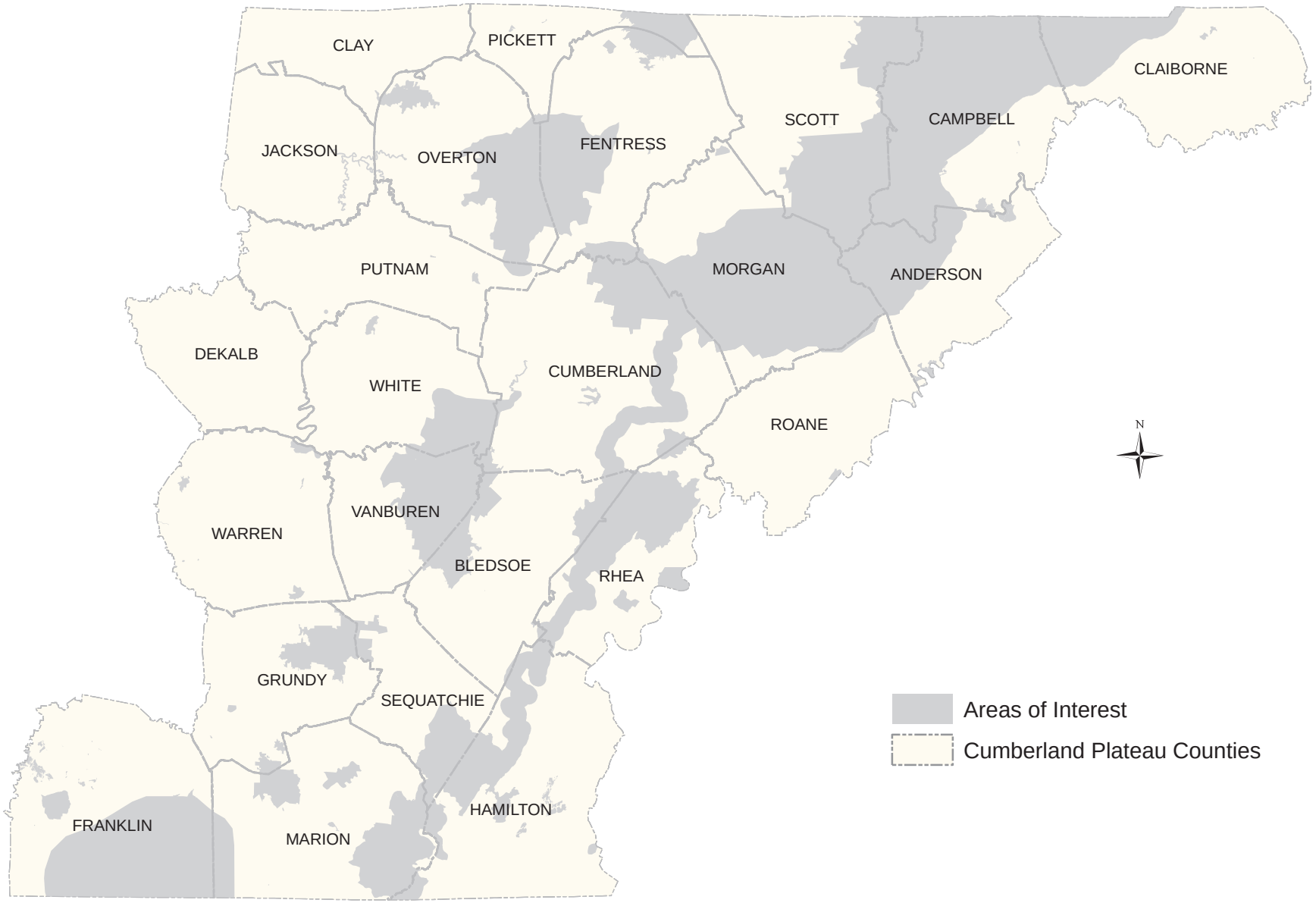
Cumberland Plateau Region



Generated by the TWRA GIS Lab, August 2006 (jj)

IMPORTANT AQUATIC HABITAT AREAS OF THE CUMBERLAND PLATEAU

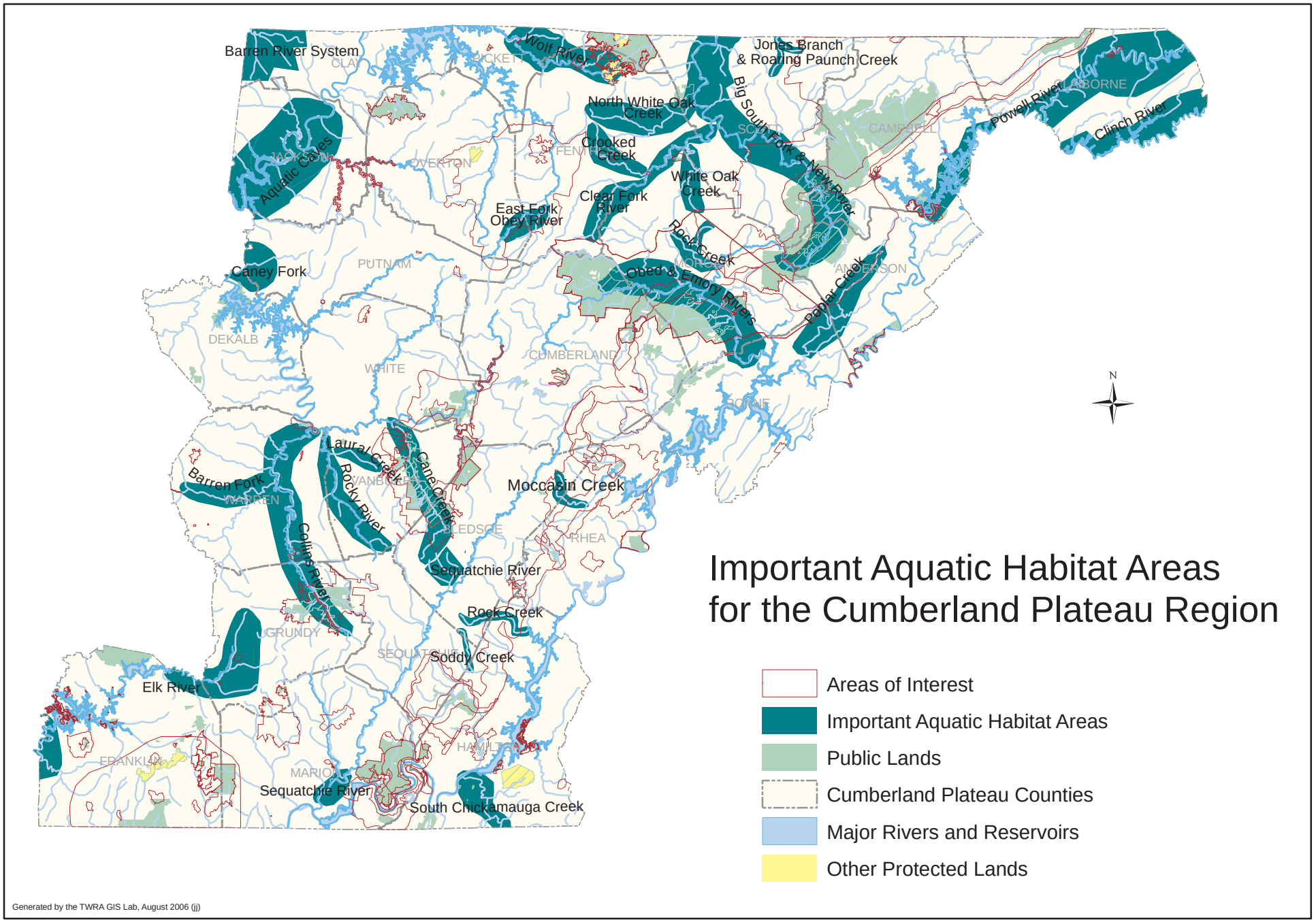
Location - 25 stream and river systems, and numerous caves were identified as critical aquatic habitats on the Cumberland Plateau as shown on the following map.

Description - The list includes small streams and large river systems. Small streams in this region are infertile and have very low flows in the summer. Water is often more abundant in caves providing critical habitat to rare cave species. Seasonally, water is a scarce commodity in this region. As public demand for water increases, even the larger rivers may not be able to supply adequate flows in the future. Watersheds in this region have been negatively impacted by poorly planned construction, development, mining, agricultural, and forestry practices.

Significance - These areas have been identified by state, federal, and private agencies as important aquatic areas because they represent critical habitats for rare species. These species include fishes, mussels, and crayfish that are listed by the TWRA and USFWS as threatened or endangered. Most of these species are endemic to this region, meaning they can be found nowhere else. Several Tennessee species have been lost, and without proactive measures to protect habitat, more losses are expected.

Strategies - Protection of streams and riparian zones through conservation programs or direct acquisition. Partners need to emphasize the use of Best Management Practices for agriculture, mining, forestry, and construction in these areas. It will also be critical to maintain adequate flows in streams and caves to provide habitat for aquatic species.

Potential Partners - TNC, USFWS, World Wildlife Fund, NRCS, TWRA, Tennessee Stream Mitigation Program, Cumberland Compact, and local watershed associations.



Important Aquatic Habitat Areas for the Cumberland Plateau Region

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ARCHAEOLOGICAL SITES – CUMBERLAND PLATEAU

Location – Anderson, Bledsoe, Campbell, Claiborne, Clay, Cumberland, DeKalb, Fentress, Franklin, Grundy, Hamilton, Jackson, Marion, Morgan, Overton, Pickett, Putnam, Rhea, Roane, Scott, Sequatchie, Van Buren, Warren, and White counties.

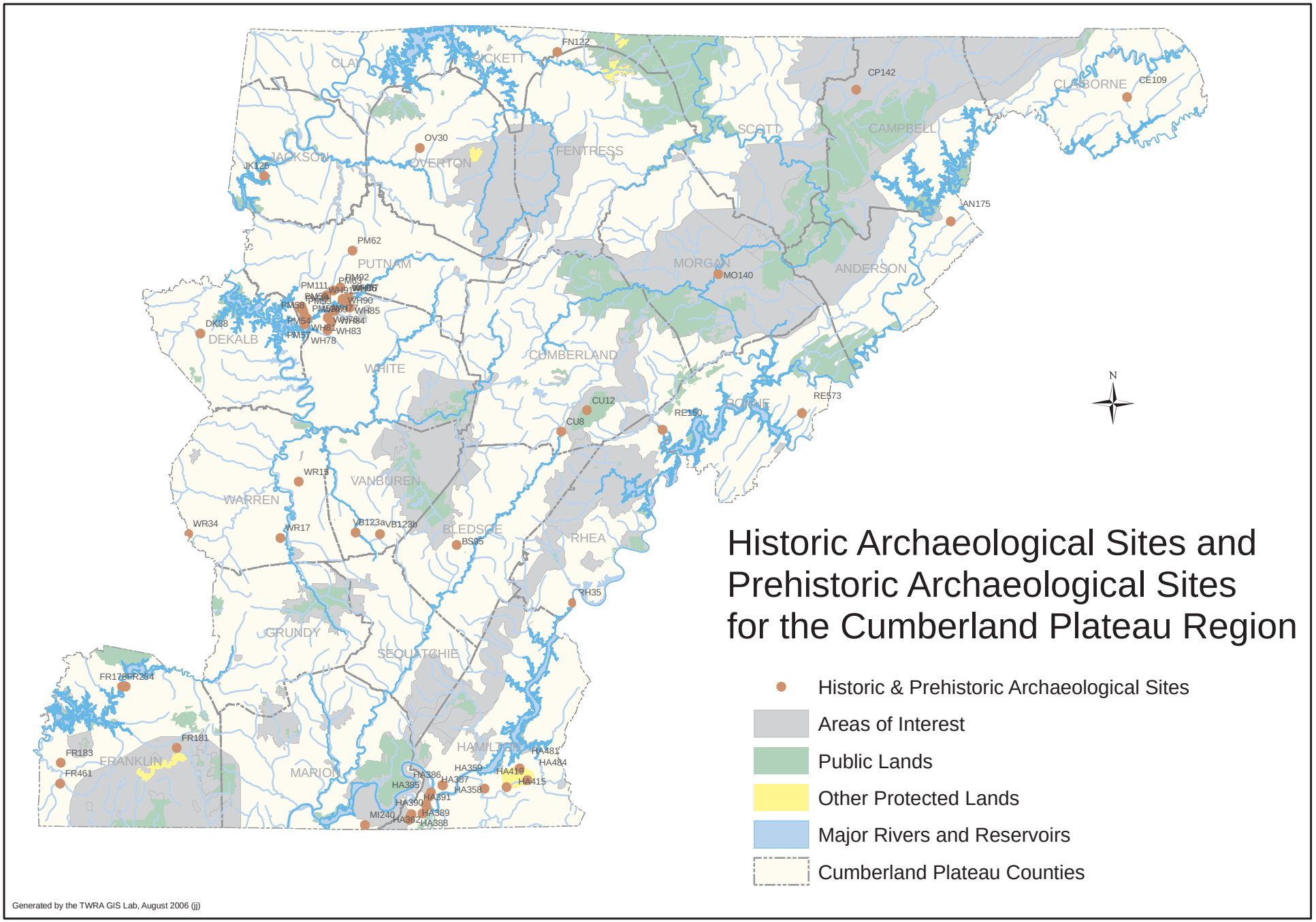
Description: Most of the 24 counties in the THCP's Cumberland Plateau region are in the physiographic region bearing this same name. Parts of some, however, fall in the Eastern Highland Rim, the Valley and Ridge, and the Sequatchie Valley physiographic regions. Stream draining is divided between tributaries of the Cumberland River system on the west and tributaries of the Tennessee River system on the east. Compared to other areas of the state, the population remains relatively small, and there are vast tracts of land owned by private corporations, including timber and mining interests. A lesser degree of development has been favorable to the preservation of archaeological resources, but this situation seems to be changing rapidly.

Prehistoric Sites: Prehistoric archaeological sites recorded within this physiographic region are classified into four major time periods: (1) Paleo-Indian, 10,000 B.C. to 8000 B.C.; (2) Archaic, 8000 B.C. to 1500 B.C.; (3) Woodland 1500 B.C. to A.D. 800; and (4) Mississippian, A.D. 900 to A.D. 1500. These sites range in size and complexity from relatively small Paleo-Indian and Archaic camps to substantial Mississippian mound centers. The prehistoric inhabitants also utilized a variety of caves to: (1) display their art (caves as portals to the underworld); (2) acquire resources, such as chert and minerals; and (3) use as seasonal living quarters.

Historic-Period Sites: Until the early 1800s, much of the Cumberland Plateau remained under control of the Cherokee, who were forced to relinquish almost all of it by 1805. Anglo-American settlement, where it had not already occurred, followed almost immediately. While there are a few recorded sites relating to the early settlement period, no systematic recording of such resources has been conducted. Two counties in this region, White and Putnam, were the focal points for an early and sustained stoneware pottery producing industry from the early 1820s until the 1930s. A systematic survey of archaeological sites relating to this industry has been conducted, and several important pottery sites are included on the attached table. While scattered Civil War action occurred throughout the region, relatively few major sites have been recorded in most counties. The exception is Hamilton County which saw a large amount of Civil War action. Only a few other themes are represented by sites listed on the table. As for all of the THCP regions under consideration, there are certainly other important historic-period archaeological sites that exist but that are just not presently identifiable based on the amount of survey work completed.

Land Protection Needs – 1,075 acres at an estimated cost of $4,100,000.

Potential Partners – The Archaeological Conservancy, Tennessee Council for Professional Archaeology, Tennessee Wars Commission


Historic Archaeological Sites and
Prehistoric Archaeological Sites
for the Cumberland Plateau Region
Historic & Prehistoric Archaeological Sites
Areas of Interest
Public Lands
Other Protected Lands
Major Rivers and Reservoirs
Cumberland Plateau Counties
N
CLAY
PICKETT
FENTRESS
JACKSON
OVERTON
PUTNAM
SCOTT
CAMPBELL
CLAIBORNE
MORGAN
ANDERSON
DEKALB
WHITE
CUMBERLAND
ROANE
VANBUREN
WARREN
BLEDSOE
RHEA
GRUNDY
SEQUATCHIE
FRANKLIN
MARION
HAMILTON
FN122
CP142
CE109
OV30
JK125
AN175
PM62
MO140
DK38
CU12
CU8
RE573
RE150
WR13
WR34
WR17
VB123a
VB123b
BS95
RH35
FR178
FR264
FR181
FR183
FR461
HA481
HA484
HA359
HA418
HA386
HA357
HA415
HA385
HA358
HA391
HA390
HA389
MI240
HA387
HA388
Generated by the TWRA GIS Lab, August 2006 (jj)

Cumberland Plateau – Archaeological Sites

County	Site Number	Estimated Acreage	Name
Anderson	40AN175	15	Camp Wallace (CW)
Bledsoe	40BS95	20	Portion of Trail of Tears
Campbell	40CP142	10	Zeb Mountain Pottery
Claiborne	40CE109	10	Breastworks Hill (CW)
Clay		0	
Cumberland	40CU8	10	Devil Step Hollow Cave (prehist)
Cumberland	40CU12	40	Grassy Cove Saltpeter Cave
DeKalb	40DK38	15	Snow Hill Entrenchments (CW)
Fentress	40FN122	5	Wes Goodman Gunshop
Franklin	40FR178	10	Bethpage Bridge Defenses (CW)
Franklin	40FR181	10	Cowan Tunnel Defenses (CW)
Franklin	40FR183	5	William Bean, Jr. Gunshop
Franklin	40FR254	10	Bethpage Bridge Defenses (CW)
Franklin	40FR461	10	Portion of Trail of Tears
Hamilton	40HA358	5	Union Earthworks and Camps (CW)
Hamilton	40HA359	5	Union Earthworks and Camps (CW)
Hamilton	40HA360	25	Union Earthworks and Camps (CW)
Hamilton	40HA361	10	Union Earthworks and Camps (CW)
Hamilton	40HA362	5	Union Earthworks and Camps (CW)
Hamilton	40HA385	5	Union Earthworks and Camps (CW)
Hamilton	40HA386	10	Union Earthworks and Camps (CW)
Hamilton	40HA387	15	Union Earthworks and Camps (CW)
Hamilton	40HA388	10	Union Earthworks and Camps (CW)
Hamilton	40HA389	15	Union Earthworks and Camps (CW)
Hamilton	40HA390	5	Union Earthworks and Camps (CW)
Hamilton	40HA391	5	Union Earthworks and Camps (CW)
Hamilton	40HA415	5	Tyner Redoubt (CW)
Hamilton	40HA419	10	Chickamauga Blockhouse(CW)
Hamilton	40HA481	5	Earthworks and Camps (CW)
Hamilton	40HA484	5	Earthworks and Camps (CW)

County	Site Number	Estimated Acreage	Name
Grundy		0	
Jackson	40JK125	150	Fort Blount/Williamsburg Sites
Marion	40MI240	100	Whiteside Bridge Defenses (CW)
Morgan	40MO140	50	Second Montgomery (CW)
Overton	40OV30	150	Camp Zollicoffer (CW)
Pickett		0	
Putnam	40PM49	10	LaFever Pottery
Putnam	40PM52	20	W. C. Hedgecough Pottery
Putnam	40PM53	5	W. T. Hedgecough Pottery, # 1
Putnam	40PM54	5	W. T. Hedgecough Pottery, # 2
Putnam	40PM57	5	Vincent Pottery
Putnam	40PM58	5	T. Cole Pottery
Putnam	40PM59	5	C. LaFever Pottery
Putnam	40PM62	10	J. A. Roberts Pottery
Putnam	40PM63	10	C. Mitchell Pottery
Putnam	40PM92	15	J. E. Campbell Pottery
Putnam	40PM111	5	Roberts/Massa Pottery
Roane	40RE150	20	Piney Grove Furnace
Roane	40RE573	5	Littleton Pottery
Rhea	40RH35	40	Hiwassee Garrison
Scott		0	
Sequatchie		0	
Van Buren	40VB123a	10	Portion of Trail of Tears
Van Buren	40VB123b	30	Portion of Trail of Tears and Camp
Warren	40WR15	10	Cardwell Mtn. Mound (prehistoric)
Warren	40WR17	10	Irving College (prehistoric)
Warren	40WR34	10	Guest Hollow Stockade (CW)
White	40WH75	10	A. LaFever Pottery
White	40WH76	5	Jugtown Pottery

County	Site Number	Estimated Acreage	Name
White	40WH77	5	S. Cole Pottery
White	40WH78	10	Bussell Pottery
White	40WH81	5	G. Elrod Pottery
White	40WH83	5	W. C. Hitchcock Pottery
White	40WH84	5	J. Spears Pottery
White	40WH85	5	W. L. Hitchcock Pottery
White	40WH86	10	L. C. Hitchcock Pottery
White	40WH89	5	LaFever-Spears Pottery # 2
White	40WH90	5	Lafever-Spears Pottery # 3
White	40WH91	5	Lafever-Spears Pottery # 4
White	40WH97	10	LaFever Homestead
		1,075	

STREAM FISHING ACCESS – CUMBERLAND PLATEAU

Locations - The aquatic projects map indicates locations where access is needed on 26 important stream fisheries (yellow asterisks and yellow-lined streams).

Descriptions - There are two distinct types of property needed to provide fishing access: 1) boat access points for launching small boats, and 2) linear tracts in and adjacent to streams for wade fishing access.

Boat access points are most needed on the Sequatchie (9), Emory (5), and Collins (4) rivers, and in the trout fishing area on the Caney Fork River (1). These areas were chosen to complement existing access areas and improve the value of recreational fisheries. All areas are located adjacent to the named river. The exact location is not critical; it is possible that another parcel located within one mile could be substituted for the indicated location. Boat access points would be relatively small parcels (up to 2 acres) located in the floodplain, preferably near existing roads.

Wade fishing access is needed on 28 streams. These would provide parking for a few vehicles and provide access for anglers to walk in and along the stream for 1-3 miles. Areas adjacent to bridges would be ideal locations for small parking areas.

Recreational Significance – Streams and rivers in the plateau offer a variety of unique fishing opportunities for smallmouth bass, rock bass, sunfish, catfish, trout, and even muskellunge. While some of these fisheries are locate within public lands such as Catoosa WMA, many miles of waters are privately owned. Anglers must have the landowner's permission to wade and fish in these streams. The task of contacting multiple landowners and getting permission can be overwhelming for many anglers, especially those that are not nearby residents. Establishing public corridors would greatly increase the recreational value of these fisheries. With the appropriate management, these streams can attract many more anglers and still provide high quality angling opportunities.

Most rivers in this region have some public access for boats or canoes, but there are still vast reaches of river that are not accessible. These access points are used by anglers and recreational paddlers. Some of the existing access areas are owned by outfitters that operate canoe rental and shuttle services. Additional public access areas would complement these enterprises by providing more launching options. More public access would allow anglers to avoid high-use paddling areas. Public areas would allow anglers access to fish even when the outfitters are closed on weekdays and in the off-season.

The stream corridors needed to provide wade fishing access include the stream channel and the adjacent riparian zones. Riparian and instream habitats are essential for supporting aquatic life in streams. Public ownership of these important habitats would ensure their protection and provide opportunities for enhancement.

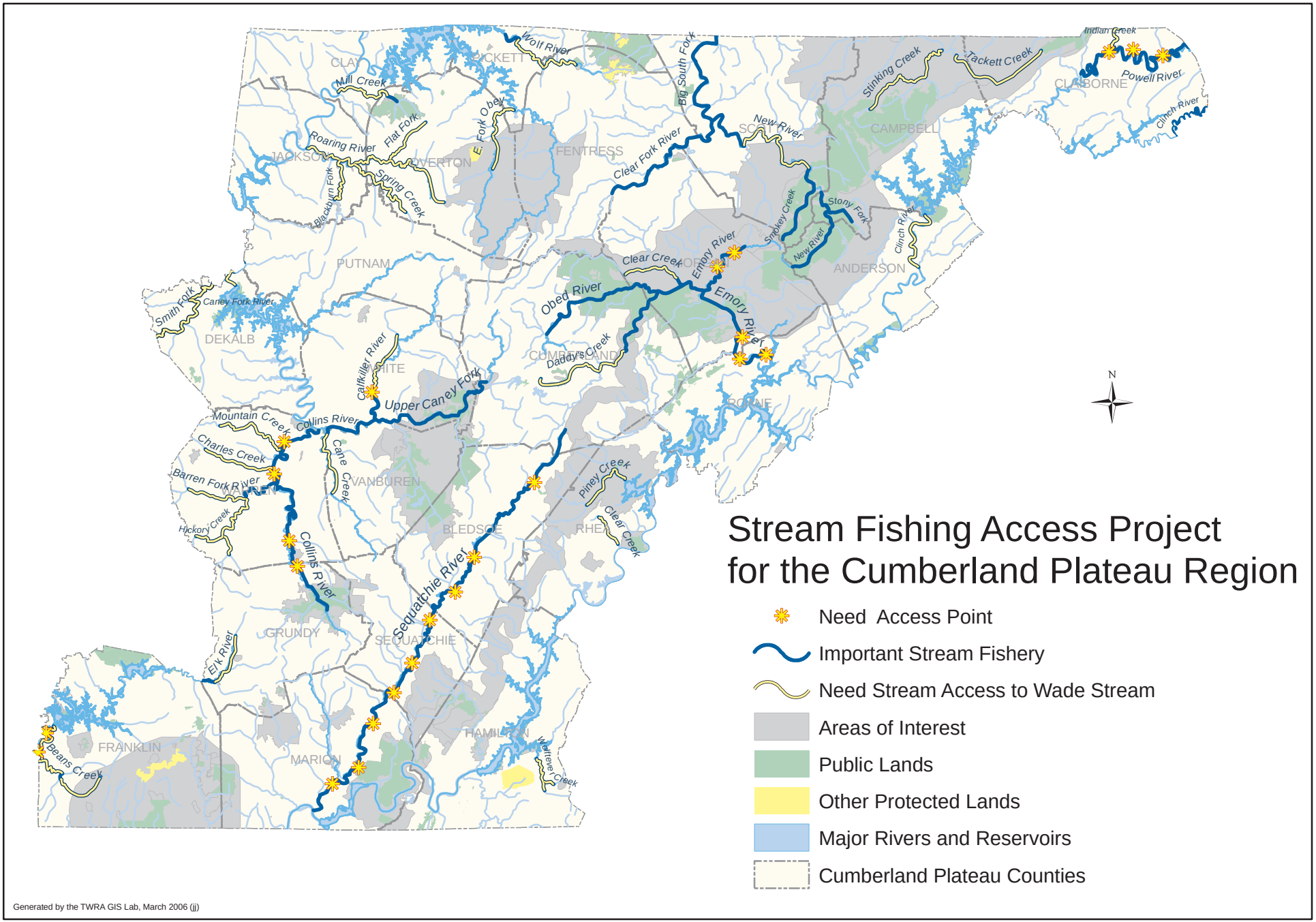
Strategy - TWRA would establish a small, gravel parking area at all access areas, and provide a narrow gravel or concrete ramp at boat access points. TWRA would develop access areas in a

manner that would minimize the footprint on the land and maximize the amount of forested riparian vegetation.

Land Protection Needs – 1,724 acres at an estimated cost of $17,457,000. See table on following page.

Potential Partners – TPGF, TWRA, Trout Unlimited, Tennessee Scenic Rivers Association, local tourism boards, and local watershed organizations.

Watershed	Stream	County of needed access	Boat access needed (#)	Wade access needed (miles)	Total Acres	Cost/ Acre	Land Cost	10% Surv. & Closing Fees	Total Cost
Caney Fork	Caney Fork River (Trout Section)	Dekalb	1	3	57	30,000	1,710,000	171,000	1,881,000
Caney Fork	Smith Fork Creek	Dekalb	0	4	72	5,000	360,000	36,000	396,000
Caney Fork	Calfkiller River	White	1	3	56	3,000	168,000	16,800	184,800
Caney Fork	Cane Creek	Warren/Van Buren	0	3	54	3,000	162,000	16,200	178,200
Collins	Collins River	Warren	4	0	8	3,000	24,000	2,400	26,400
Collins	Mountain Creek	Warren	0	3	54	3,000	162,000	16,200	178,200
Collins	Charles Creek	Warren	0	3	54	3,000	162,000	16,200	178,200
Collins	Hickory Creek	Warren	0	3	54	3,000	162,000	16,200	178,200
Collins	Barren Fork River	Warren	0	3	54	3,000	162,000	16,200	178,200
Elk	Elk River (Trout Section)	Franklin	1	5	92	20,000	1,840,000	184,000	2,024,000
Elk	Elk River	Grundy	0	1	18	3,000	54,000	5,400	59,400
Elk	Beans Creek	Franklin	0	2	36	4,000	144,000	14,400	158,400
Sequatchie	Sequatchie River	Bledsoe/Sequatchie/Marion	9	0	18	3,000	54,000	5,400	59,400
Tennessee	Clear Creek	Rhea	0	3	54	3,000	162,000	16,200	178,200
Tennessee	Piney Creek	Rhea	0	3	54	3,000	162,000	16,200	178,200
Tennessee	Wolfteves Creek	Hamilton	0	3	54	3,000	162,000	16,200	178,200
Roaring R.	Roaring River	Jackson/Overton	0	5	90	3,000	270,000	27,000	297,000
Roaring R.	Blackburn Fork	Jackson	0	3	54	3,000	162,000	16,200	178,200
Roaring R	Spring Creek	Jackson/Overton	0	3	54	3,000	162,000	16,200	178,200
Roaring R	Flat Creek	Overton	0	3	54	3,000	162,000	16,200	178,200
Obey	Mill Creek	Caly/Overton	0	3	54	3,000	162,000	16,200	178,200
Obey	East Fork Obey River	Overton	0	5	90	3,000	270,000	27,000	297,000
Obey	Wolf River	Pickett/Fentress	0	5	90	3,000	270,000	27,000	297,000
New River	New River	Scott	0	3	54	3,000	162,000	16,200	178,200
Emory	Emory River	Morgan/Roane	5	0	10	3,000	30,000	3,000	33,000
Emory	Daddy's Creek	Cumberland	0	3	54	3,000	162,000	16,200	178,200
Emory	Clear Creek	Morgan	0	2	36	3,000	108,000	10,800	118,800
Clear Fork	Tackett Creek	Campbell/Claiborne	0	3	54	6,000	324,000	32,400	356,400
Clear Fork	Stinking Creek	Campbell	0	3	54	6,000	324,000	32,400	356,400
Powell	Powell River	Claiborne	3	0	6	31,000	186,000	18,600	204,600
Powell	Indian Creek	Claiborne	0	2	36	6,000	216,000	21,600	237,600
Clinch	Clinch River (Trout Section)	Anderson	0	8	145	50,000	7,250,000	725,000	7,975,000
	TOTAL		**24**	**93**	**1724**		**$15,870,000**	**$1,587,000**	**$17,457,000**



Generated by the TWRA GIS Lab, March 2006 (jj)

ALPINE MOUNTAIN CONSERVATION AREA

Location – (N36.3797, W85.1667) The Alpine Mountains Conservation Area straddles Overton and Fentress Counties just south of Hwy 52 on the northern Cumberland Plateau. This conservation area includes Skinner Mountain, located in Fentress County approximately 9 miles southwest of Jamestown.

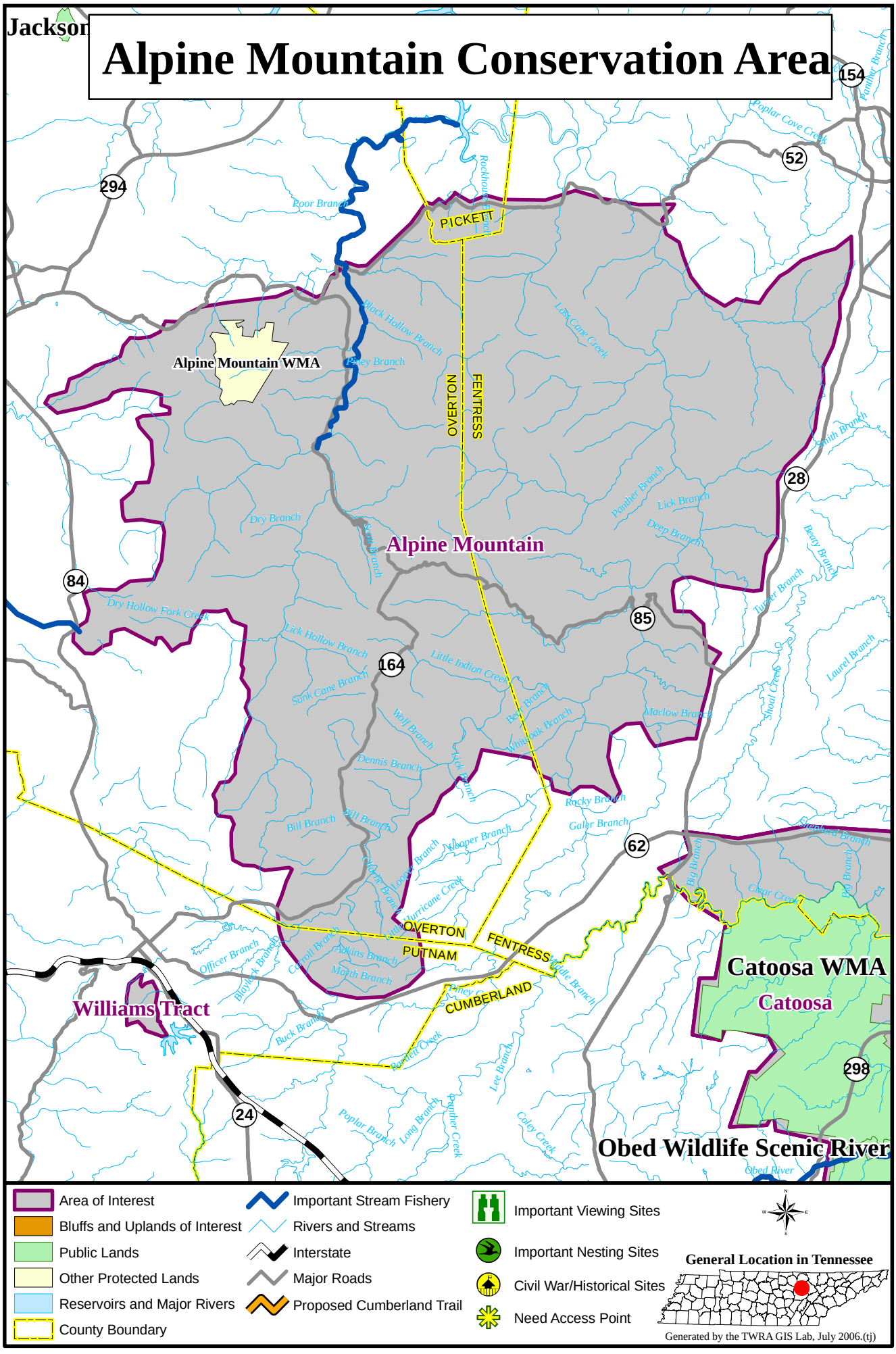
Description – This is characterized by steep hills and is predominately forested. While it has remained mostly undeveloped with only limited agriculture, it is within five miles of Dale Hollow Lake and twenty miles of Big South Fork National River and Recreation Area. The area is well situated for development in the future. Recently, some large parcels of land have changed ownership several times, indicting that it may be vulnerable to development that may include vacation homes and recreation such as off-highway vehicles and horseback riding.

Significance - The Alpine Mountains Conservation Area's extremely high conservation value deserves additional note for its importance in the State Wildlife Action Plan. Acquisition of the Skinner Mountain property would be a bold beginning in protecting the Alpine Mountains Conservation Area. The entire area is considered a "bird conservation hotspot" according to TNC's Ecoregional Plan and the USFWS. The State Wildlife Action Plan also lists fifteen bird species of note within the area (the cerulean warbler is of particular interest and is a USFWS species of management concern). The State Wildlife Action Plan documents the federally endangered Indiana bat within the area. The Rafinesque's big-eared bat is a USFWS species of management concern that is found in this area and it also requires large, native forested tracts for summer habitat.

Strategy - The strategy for acquisition at the Alpine Mountains Conservation Area is to acquire the Tower Investments LLC tract at Skinner Mountain, and acquire additional acreage as it becomes available.

Land Protection Needs – 10,000 acres at an estimated cost of $6,000,000.

Potential Partners – TNC, TWRA, TDEC, and USFWS.


Alpine Mountain Conservation Area
Jackson
Alpine Mountain WMA
Alpine Mountain
Williams Tract
Catoosa WMA
Catoosa
Obed Wildlife Scenic River
PICKETT
OVERTON
FENTRESS
PUTNAM
CUMBERLAND
154
52
294
28
84
85
164
62
298
24
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
Need Access Point
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

SGT. ALVIN C. YORK STATE HISTORIC PARK

Location – (N35424, W84.9603) Fentress County, approximately eight miles north of Jamestown, TN on Highway 127. (See Pickett State Forest map).

Significance - The historic park includes the York family farm and the gristmill he operated for many years on the banks of the Wolf River. The farm was donated to the state in 1974 to commemorate the life and times of Sgt. Alvin C. York.

Strategy - The strategy for future acquisitions at the York farm is to acquire properties surrounding the park that enhance the historic and natural aesthetics of the park as tracts become available.

Land Protection Needs - 145 acres at an estimated cost of $231,900.

Potential Partners - TDEC and Sgt. Alvin C. York Historic Association.

AMENT CAVE

Location – (N36.1450, W85.4900) Ament Cave is located Putnam County 1.25 miles south-southeast of the Putnam County Courthouse at Cookeville, 100 feet east of the Old Sparta Pike. (See Tanager Hill RSNA map)

Description – (Geologic horizon - Warsaw limestone) Ament Cave lies in a rapidly developing part of Cookeville. While the mouth of the cave occurs on city-owned land, the bulk of the cave lies beneath private property. The city is currently in negotiations with the USFWS concerning conservation measures on the portion they control.

According to Barr (1961): "Prior to the recent completion of a city sewage disposal plant, Cookeville sewage was dumped into a stream that flowed underground through Ament Cave. The mouth is a pit 20 feet deep and 30 feet wide, in a large depression 50 feet deep and 60 feet in diameter. An upper and lower level are developed; the stream flows through the lower one and emerges at the head of Pigeon Roost Creek 1,600 feet south of the entrance. The cave meanders about somewhat, and the total length of its passages is about 3,000 feet. About 1,100 feet of its passages may be explored without wading or boating in the stream. In the cave are several sizable canyons, the largest of which is 45 feet high, 40 feet wide, and 75 feet long."

Significance – Site Importance High (B3) - Ament Cave supports a moderately large population of the federally endangered gray bat (*Myotis grisescens*, S2). The cave has been reported alternatively as a summer roost for male bats (bachelor colony) and as a maternity roost for females and their young. Recent population estimates (2002) include 8,330 bats using the cave as a summer roost, and upwards of 18,000 gray bats congregating in August (Harvey, 2002; Britzke, 2003). The latter number is representative of gray bats using Ament Cave as a staging area prior to moving to hibernation caves.

Strategy – Because the target species presumably only uses the main entrance for access, protection of the city-owned entrance is imperative. Additionally, a forested buffer needs to be established to provide cover and potential temporary roosts for bats entering and leaving the cave. Acquisition and protection of other tracts, particularly those in close proximity to known roost locations in the cave, are essential to maintaining the integrity of the system. Because a significant portion of Cookeville's storm water runoff enters Ament Cave, acquisition of the cave's recharge area is impractical. However, control of lands above and adjacent to the cave should prove beneficial to the gray bat and other species that may be present.

Land Protection Needs - 91 acres at an estimated cost of $550,000.

Potential Partners – USFWS, TWRA, TNC, City of Cookeville, Bat Conservation International, and TDEC.

ANTIOCH BRIDGE–DADDY'S CREEK

Location – (N36.0139, W84.8233) The property is located in Cumberland County at the Antioch Bridge crossing of Daddy's Creek from river mile 9.5 downstream to near stream mile 5.5, near the community of Watson. (See Catoosa WMA map)

Description – This site consists of a four-mile segment of Daddy's Creek, a tributary to the Obed River. The stream reach is typical of a northern Cumberland Plateau high gradient stream. The formation of sand/cobble bars along the riparian zone creates habitat for several rare plant species. Expanding to Catoosa WMA would protect a four-mile stretch of river and approximately 340 acres.

Significance – Site Importance Very High (B2) - This stretch of river contains populations of seven rare species. A significant population of the Virginia spiraea (*Spiraea virginia*) is located here. The population contains hundreds of shrubs and is considered to have a high viability. Virginia spiraea is federally threatened and is considered very rare and imperiled globally (G2) and within the state (S2) according to DNA data. A historic population of Cumberland rosemary (*Conradina verticillata*) was known from this area, although habitat still exists. Cumberland rosemary is federally and state threatened, and is considered very rare and local throughout its range (G3) and rare and uncommon within the state (S3). This is the type locality (location from where a species is first described) for the Cumberland sandgrass (*Calamovilfa arcuata*). Cumberland sandgrass is state endangered, and is considered very rare and imperiled globally (G2) and within the state (S2). The site also contains a population of large-flowered Barbara's-buttons (*Marshallia grandiflora*), which is also state endangered, and is considered very rare and imperiled globally (G2) and within the state (S2). A population of drooping bluegrass (*Poa saltuensis*) is also known from this river reach. This grass is state threatened, and considered secure globally (G5) but extremely rare within the state (S1). A population of Nuttall's pondweed (*Potamogeton epihydrus*) is also known from this area. Nuttall's pondweed is of special concern in the state and very to extremely rare within the state (S1S2). Finally, a population of the tangerine darter (*Percina aurantiaca*) is also known from this river reach. This fish is deemed in-need-of-management which means additional information is needed relating to its distribution, abundance and management needs, and is considered apparently globally secure (G4) and rare and uncommon within the state (S3). Daddy's Creek is also designated as critical habitat for the spotfin chub (*Hybopsis monacha*), federally and state threatened, and considered very rare and imperiled globally (G2) and within the state (S2).

Strategy – A Recovery Land Acquisition grant(s) from the USFWS could be obtained to purchase tracts along this river corridor where federally listed species are known. Tracts of interest should at a minimum protect the riparian zone of the stream.

Land Protection Needs - 336 acres at an estimated cost of $810,000

Potential Partners – NPS, USFWS, TDEC, and TWRA

BERRY CAVE

Location - (N35.7597, W84.4519) Berry Cave is located in Roane County on the Cave Creek USGS topographic quadrangle. The mouth is found 0.23 mile west of the Tennessee River (mile 578.4), near Wright Bend, on the southeast side of the valley just east of Huckleberry Ridge, 0.15 mile west of State Hwy 72, at an elevation of 840 feet.

Description - According to Barr (1961): "The cave is apparently linked genetically with the half-mile-long 50-foot depression into which several creeks flow, just west of the actual cave entrance, which is on the west side of a wooded hill. The cave mouth is 40 feet high by 85 feet wide, and a steep slope of talus leads down into the cave. Just within the mouth the roof of a room at the right has collapsed, leaving a square vertical shaft 40 feet deep and 20 feet wide, which opens to the surface. The main part of the cave extends 520 feet along the strike in a northeasterly direction. This passage is 25 feet high and 20 feet wide at the beginning but lowers to 5 feet high in several places. The floor is cherty gravel, and a fairly large stream flows inward, coming from a spring 75 feet within the mouth. Toward the end of this main passage is a low updip crawlway over clay banks on the west side of the passage. This leads into a room 45 feet long and 7 feet high. At the northeast end of this room a small hole was opened to permit access to 330 feet of virgin passage, which averages 5 feet high by 6 feet wide, oriented along the strike. Near the entrance a passage extends southwest for 120 feet from the base of the rectangular shaft previously mentioned. Much of this passage is a crawlway over flowstone."

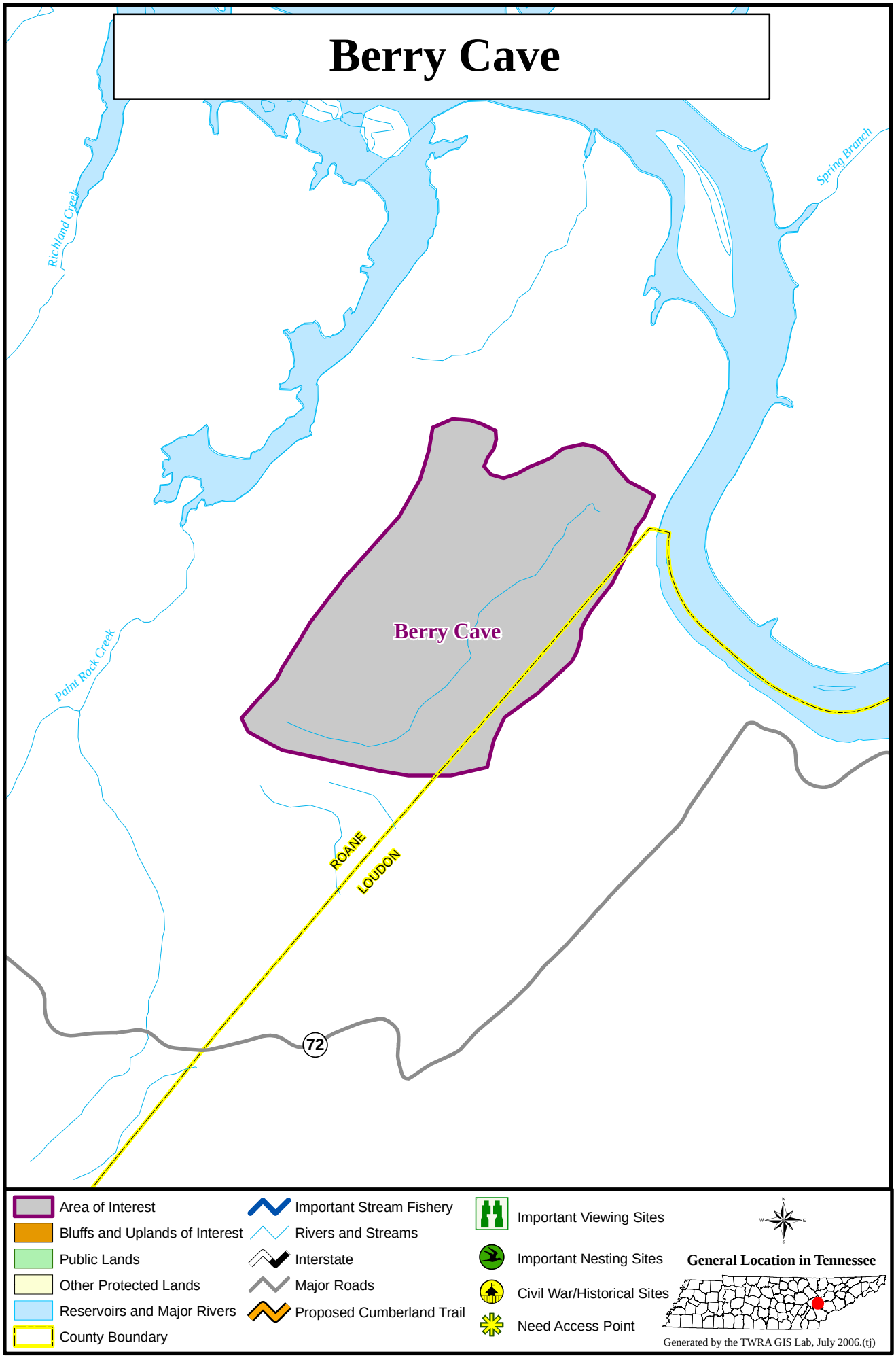
Significance - Berry Cave is the type locality for the imperiled aquatic Berry Cave salamander (*Gyrinophilus gulolineatus*, state-threatened), a species recently taxonomically split from the closely related and likewise protected Tennessee cave salamander (*Gyrinophilus palleucus*). The Berry Cave population was estimated to contain 25 animals in 1974; five specimens were observed during the winter of 2004-05 (Miller & Niemiller, 2006). The cave also is home to the rare incurved cave isopod (*Caecidotea incurva*), known from only two sites in Tennessee.

Strategy - Species of the genus *Gyrinophilus* and their food animals likely are subject to negative impacts from excessive sedimentation, fertilizer, pesticides, animal waste, chemical spills, and urban and agricultural runoff. A primary goal for any population is to control to the greatest extent possible the contributing sources in the recharge area supporting their cave habitats. Protecting watershed integrity is a particular need for Berry Cave. An estimated 877 acres comprise the drainage area for Berry Cave, the bulk of which is in a rural agricultural setting roughly bisected by one public right-of-way. The undeveloped portions of the drainage should be protected by acquisition or purchase of conservation easements, and the balance by entering into binding management agreements with willing landowners. TNC maintains a non-binding CMA with the owners of the mouth of the cave, and this has proven productive. However, this includes fewer than 20 acres. The majority of the level portions of the watershed are used for grazing or other agricultural purposes, and unrestricted livestock access to its feeder streams is believed to pose the greatest threat to the integrity of the cave system. All streams within the Berry Cave watershed must be evaluated for streamside integrity, and riparian zones reestablished with appropriate native species. Alternate water sources and livestock exclusion fencing should be provided at no cost to willing landowners. Regular water quality monitoring

within the cave should be part of the site's management, and comprehensive surveys of all biota in Berry Cave should be undertaken.

Land Protection Needs – 897 acres (core area of 20 acres under CMA and 877 acres in watershed) at an estimated cost of $1,220,000.

Potential Partners - TNC, USFWS, TWRA, TDEC, and NRCS.


Berry Cave
Richland Creek
Spring Branch
Paint Rock Creek
Berry Cave
ROANE
LOUDON
72
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
Need Access Point
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

BIG MOUTH CAVE

Location – (N35.3328, W85.8267) Big Mouth Cave is in western Grundy County on the north side of Payne Cove, near the mouth of Limekiln Hollow, in the escarpment of the Cumberland Plateau, at an elevation of 1,040 feet. (See Goose Pond map)

Description – (Geologic horizon - St. Louis limestone) – "Big Mouth Cave is aptly named. The entrance was formed by the collapse of one wall of a large gallery at a point where the gallery makes a sharp swing which brings it close to the surface of the hillside. The cave is located 300 yards west of the mouth of Big Room Cave and is part of the Big Room Cave system. The mouth, located on the north side of an elongate sink, is 140 feet wide and 20 feet high. There are two forks. The east fork is 375 feet long, 40 feet wide, and 12 feet high, ending in a breakdown. The other fork extends S. 80° W. for 425 feet to a low, wet crawlway. A wet-weather stream enters the sink and flows into this part of the cave. About 250 feet from the mouth a left hand passage opens. It runs parallel to the stream channel and intersects it 1,000 feet inside the cave. According to Dr. E. R. McCrady of Sewanee, Tennessee, it is possible to travel for some distance in the southwest branch and finally to reach a large underground stream. It is possible that this may be the same stream that is observed in Big Room Cave and that its debouchment is at Sartain Spring." (Barr, 1961).

Significance – Site Importance Very High (B2) - Big Mouth Cave is one of four locations for the Big Mouth Cave salamander (*Gyrinophilus palleucus necturoides*), a species listed as threatened in the state. Previous researchers have found the species only in limited numbers, but Miller (pers. comm.) observed 34 specimens in early 2005. The cave also supports the southern cavefish (*Typhlichthys subterraneus*, deemed in-need-of-management) and a rare but unlisted blind cave crayfish, *Orconectes australis*. Based on recent collections in the Cumberland Plateau, many other rare cave invertebrates are likely present.

Strategy – As each of the target species is aquatic, protection of the cave's recharge area is advisable. Though the exact recharge area has not been determined, an area of approximately 500 acres is estimated based on drainage patterns reflected in the Burrow Cove USGS topographic map. Additionally, access to the cave needs to be controlled to prevent unnecessary disturbance or illegal collection of *G. palleucus necturoides*. An initial purchase of approximately 20 acres would protect at least the mouth of the cave.

Land Protection Needs – 524 acres at an estimated cost of $333,000

Potential Partners – TNC, MTSU, TWRA, Southeastern Cave Conservancy (SCCi), and TDEC.

BIG WOODS

Location - (N35.7474, W85.9304) The approximately 1,000 acre site is located in Warren County about 1.9 miles north of Centertown. The site is bounded by Mears Rd on the north and by Hwy 70S on the south.

Description - Located in the "Barrens" region on the Eastern Highland Rim section of the Cumberland Plateau, the site is about 1,000 acres of woodlands, swamp forests, open wet meadows, and fields. A significant percent of the property is considered a wetland.

Significance – Site Importance Moderate (B4) - Big Woods is a representative example of oak-hickory woodlands, flatwoods, and open wet meadows, which were once abundant across the "Barrens" region. Two species of rare plants, dwarf huckleberry (*Gaylusaccia dumosa*) and death-camas (*Zigadenus leimanthoides*), are known from the property. Dwarf huckleberry is listed as threatened in the Tennessee and with less than 30 known populations (S3). Death camas is also listed as state threatened and considered imperiled within the state (S2) with only 14 extant occurrences. Other interesting species of plants include sundew (*Drosera intermedia*), several species of orchids: whorled pogonia (*Isotria verticillata*), rosebud orchid (*Cleistes divaricata*), green adder's-mouth (*Malaxis unifolia*), several *Platanthera* species; and numerous native grasses, rushes and sedges. Although these previously mentioned species are not legally rare they are indicative of a wet barrens community that has been previously described by NatureServe as the Eastern Highland Rim Prairie and Barrens Ecological System (CES202.354). Eastern Highland Rim Prairie and Barrens Ecological System is endemic to the state of Tennessee and may contain several critically imperiled (G1) or imperiled (G2) vegetation communities.

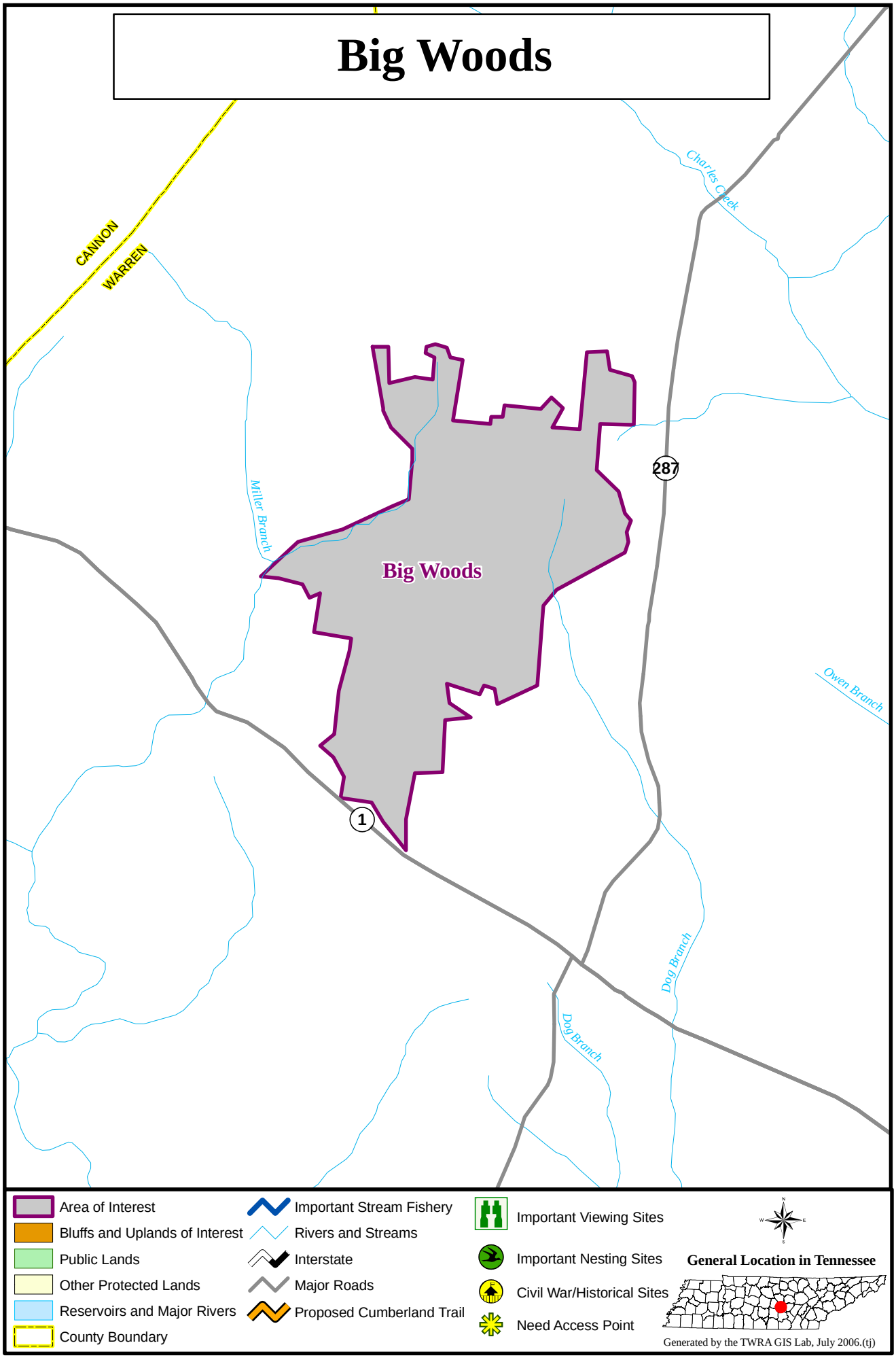
The state endangered and globally imperiled (G1G2) barrens darter (*Etheostoma forbesi*) is located immediately down stream of the site design in Dog Branch. The site could also include habitat for the state endangered and critically imperiled (G1/S1) barrens topminnow (*Fundulus julisia*).

Strategy - The strategy for acquisition at Big Woods is to acquire properties within and adjacent to the site design (site boundary) for access or access control, watershed protection, and preservation of representative communities of Eastern Highland Rim Prairie and Barrens Ecological System. Preservation of these rare communities will provide protection for rare species and wildlife in Tennessee, while providing educational opportunities for area colleges, universities, and the general public.

Land Protection Needs - 945 acres at an estimated cost of $1,400,000.

Potential Partners - TWRA, TNC, TDEC, and Forest Legacy.

Big Woods


CANNON
WARREN
Charles Creek
Miller Branch
Big Woods
287
1
Owen Branch
Dog Branch
Dog Branch
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
Need Access Point
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

BLEDSOE STATE FOREST

Location – (N35.7680, W85.2552) Bledsoe State Forest is located on the Cumberland Plateau where Bledsoe, Cumberland, Van Buren, and White Counties intersect just east of Fall Creek Falls State Park and just south of Bridgestone/Firestone WMA. (See Scotts Gulf map)

Description - Bledsoe State Forest - (6,782 acres). Bledsoe State Forest was part of a larger land purchase made by the State Department of Institutions in 1907. It was placed under the TDF in 1933. The timber type consists primarily of mixed upland hardwoods and most stands are in the 40 to 80+ age classes. The topography of this area includes very steep gorge-like drainages characteristic of major drainages of this region. The tops of the Plateau surrounding these gorges are relatively flat to rolling hills typically low in fertility. Due to fire, the area historically was predominantly pine and mix pine/hardwoods.

Significance – Bee Creek is a scenic corridor along the northern and western portion of the forest. The land between Bee Creek and the western forest boundary is vulnerable to development that would create serious access issues for managing the forest. TWRA WMAs (Bridgestone/Firestone and Scotts Gulf) to the north are only separated from the forest by a short distance. Connecting Bledsoe to TWRA properties would provide a larger intact area of public ownership to provide protection to the resources for both agencies and provide access to the isolated part of Bledsoe State Forest along the north of Bee Creek. These lands are in or adjacent to some of the most critical cave/karst habitats.

Strategy - Specifically the Bee Creek Gorge and adjacent properties are the target for acquisition to protect the scenic value and the watershed. Additionally, in-holdings and land to gain or control access is an important acquisition criteria.

Land Protection Needs – 6,042 acres at an estimated cost of $7,197,000.

Potential Partners – TDA, TWRA. and Forest Legacy

BLOOIN HOLLOW

Location - (N35.0328, W86.1920) The approximately 500 acre site is located in Franklin County. The site is located about 4.5 miles east southeast of Huntland, southeast end of Motlow Cove, headwaters of Wilhite Creek. (See Carter Mountain map)

Description - Located on the Eastern Highland Rim section of the Cumberland Plateau, the site is about 500 acres of rich cove forests and sub-mesic karst forests. The site design includes Blooin Hollow and the unnamed hollow to the north and includes a climb in elevation of over 600 ft.

Significance – Site Importance Outstanding (B1) - Steep Rocky limestone woods with a steep seasonal limestone creek with abundant ledges. Portions of the creek have steep cascading waterfall formations. The site is the only known location in Tennessee for the globally and critically imperiled (G1/S1), federally endangered Morefield's leather-flower (*Clematis morefieldii*). Morefield's leather flower was discovered in Tennessee in 2002. Other associated rare plant species include state imperiled (S2) American smoketree (*Cotinus obovatus*); three state threatened species - butternut (*Juglans cinerea*), Alabama snow-wreath (*Neviusia alabamensis*) and yellow honeysuckle (*Lonicera flava*); and the state endangered, critically imperiled (G1S1) limerock arrowwood (*Viburnum bracteatum*). The forest community on site is best defined by Natureserve as the geographically restricted, Allegheny-Cumberland Dry Oak Forest and Woodland. The abundance of rare plant species on site may yet represent an undescribed forest community.

Strategy - The strategy for acquisition at Blooin Hollow is to acquire properties within and adjacent to the site design (site boundary) for access or access control, watershed protection, and preservation of rare species and representative communities of Allegheny-Cumberland Dry Oak Forest and Woodland Ecological System. Preservation of these rare species and wildlife will provide educational opportunities for area colleges, universities, and the general public, and work toward preserving Tennessee's natural heritage.

Land Protection Needs – 538.4 acres at an estimated cost of $975,000.

Potential Partners - TNC: site could be of interest as it is close proximity to the Walls of Jericho. Other potential partners include Forest Legacy and USFWS.

BOOKER T. WASHINGTON STATE PARK

Location – (N35.1098, W85.1686) State Park is located in Hamilton County on the shores of Chickamauga Lake near Chattanooga.

Significance - Booker T. Washington State Park was developed for recreational purposes by TVA and was leased by the state from TVA in 1938. It was formally deeded to the state in 1950.

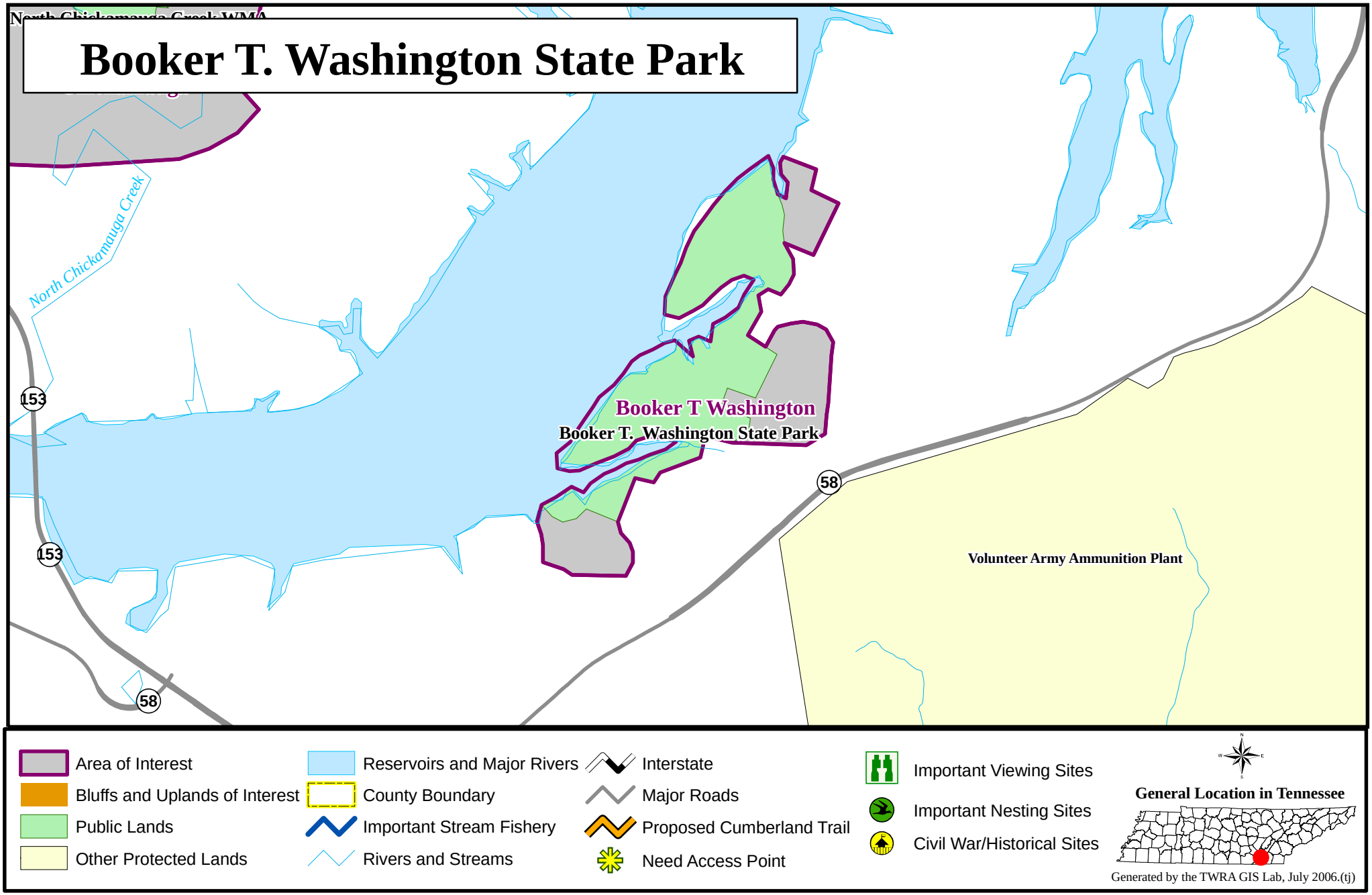
Its namesake, Booker Taliaferro Washington was born into slavery at Hales Ford, Virginia, however with great determination, secured an education and became one of America's best known and most loved citizens. He became a prominent writer, thinker, and educator and is most widely remembered for his many years of service as Founder and President of Tuskegee Institute now know as Tuskegee University, a historically black university.

The park provides a group camp and group lodge, picnic areas with shelters, fishing, bike trails and swimming.

Strategy - The strategy for future acquisitions for Booker T. Washington State Park is to acquire properties surrounding the park for watershed protection and properties that have significant cultural and natural features that further the wildlife, aesthetics, interpretive and recreation missions of Booker T. Washington State Park.

Land Protection Needs – 112 acres at an estimated cost of $550,000

Potential Partners - TNC, TCF, and TDEC.


Booker T. Washington State Park
North Chickamauga Creek WMA
North Chickamauga Creek
153
153
58
58
Booker T Washington
Booker T. Washington State Park
Volunteer Army Ammunition Plant
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

BOYD BARRENS

Location – (N35.6091, W85.8971) Boyd Barrens is located in Warren County on Sunny Acres Road off Hwy 55. The site is just across the road from the water treatment facility about 5 miles southwest of McMinnville. (See West Morrison Pond map).

Description – This 20-acre site on the Eastern Highland Rim is an excellent example of a once-extensive wetland prairie/barrens complex. Depending upon the season, the site is either dominated by native cool-season or warm-season grasses. Informed of its importance, the landowner continues annual mowing in the late fall or early winter. This management prevents woody species encroachment and allows the site to remain in an early successional state. A portion of the site contains a mature second-growth forest.

Significance – Site Importance High (B3) - This area has a long-history of botanical investigations. In the 1940s and 1950s several rare species were collected just outside of Morrison in habitats such as "marsh, edge of pond, or boggy field." Rare in Tennessee, the species are more common along the Atlantic and Gulf Coasts. At least 22 of the species collected are currently listed at the state level and 11 are considered critically imperiled in Tennessee. Recent investigations have found that the original collecting site has been degraded and many of the rare plants have not been seen in over 50 years.

During the 1990s additional plants were discovered a short distance from the original collecting site. DNA botanists have since visited Boyd Barrens and documented nine state-listed plant species and one state record hybrid. Additional visits are expected to yield more rare species. Many of the rare species are considered obligate wetland species, and are known from just a few counties in Tennessee. With its numerous state-listed species, and acidic, wet soils, Boyd Barrens is one of the most significant botanical sites in the state. The rare plants include:

		State Rank	State Status
Carex barrattii	Baratt's sedge	S2	Endangered
Drosera brevifolia	dwarf sundew	S2	Threatened
Gaylussacia dumosa	dwarf huckleberry	S3	Threatened
Gymnopogon brevifolius	broad-leaved beardgrass	S1S2	Special Concern
Iris prismatica	slender blue flag	S2S3	Threatened
Lechea pulchella	Leggett's pinweed	S1	Endangered
Lobelia canbyi	Canby's lobelia	S2S3	Threatened
Lysimatchia x *producta*	hybrid of two species	TN record	currently not listed
Pedicularis lanceolata	swamp lousewort	S1S2	Special Concern
Zigadenus leimanthoides	death camas	S2	Threatened

Strategy – Considering the recent development in the area, its protection is of utmost importance. TWRA wetland acquisition funds could be applied. Since the site is a grassland, NRCS grassland reserve program may be a potential source of funding.

Land Protection Needs - 18.9 acres at an estimated cost of $48,000.

Potential Partners – TWRA, NRCS, TNC, and TDEC.

BRADY MOUNTAIN

Location – (N35.8301, W84.9663) Brady Mountain is in Cumberland County in the general vicinity of Crossville on the Cumberland Plateau. It is northeast of Grassy Cove Karst.

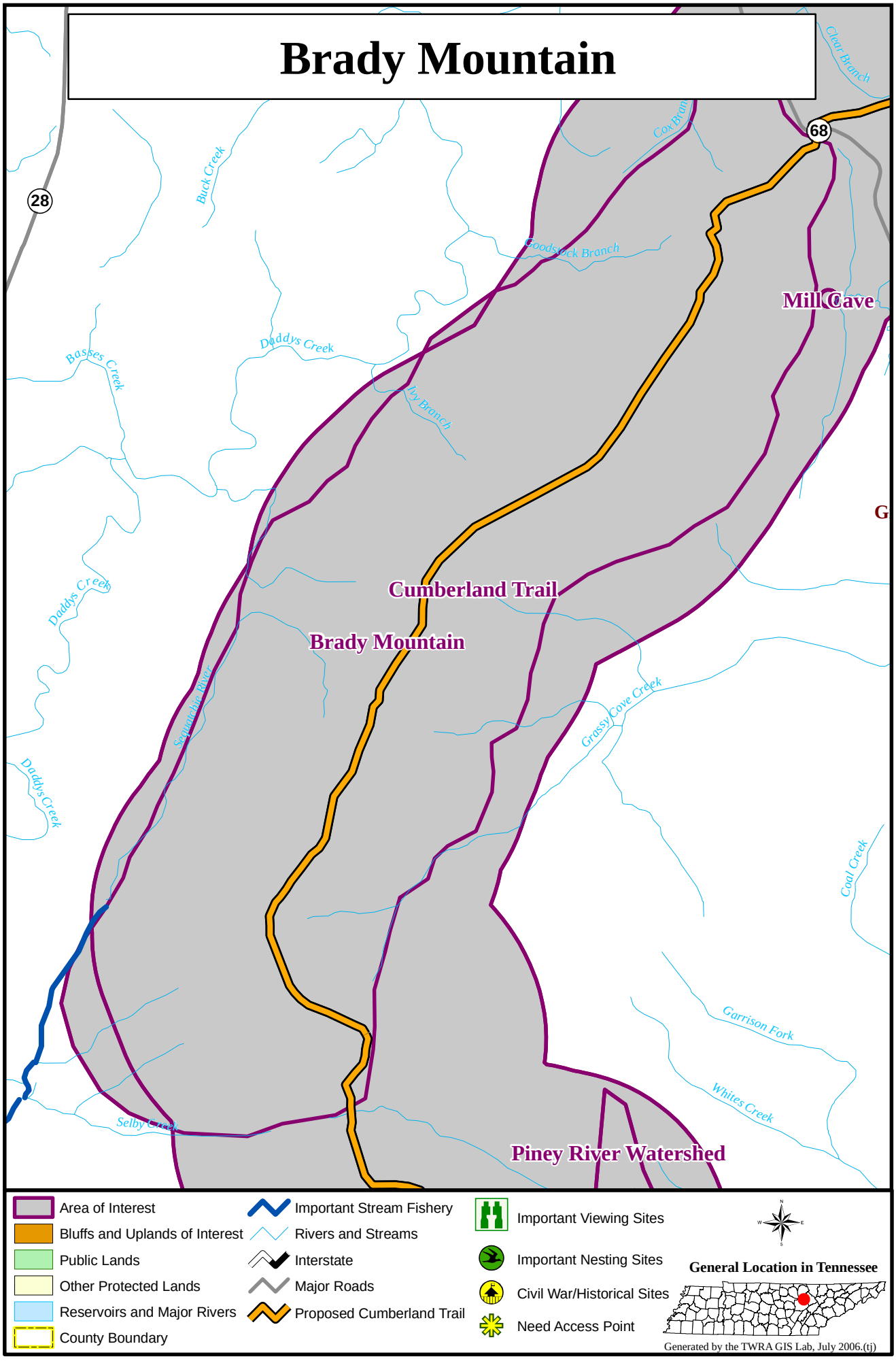
Description - Brady Mountain is a 93-acre privately owned registered SNA. The site is the forested west slope of Brady Mountain between Jewett Rd. and the crest of the mountain. It is part of the 3,000-acre Grassy Cove Karst Area. The forest community is a combination of mixed mesophytic and oak hickory forest types.

Significance - Site Importance High (B3) - Brady Mountain is a densely forested area and it is significant because it supports a large population of least trillium (*Trillium pusillum*), which is a state endangered plant. This area also is located close to where the Cumberland Trail is to be built. This area is also important in relationship to implementing a strategy that protects Grassy Cove, which is a National Natural Landmark.

Strategy - The protection of this important site requires the acquisition of 93 acres of private land. Protection of surrounding areas should also be explored to include the slopes and mountains surrounding Grassy Cove.

Land Protection Needs – 6,454 acres at an estimated cost of $6,704,000.

Potential Partners - TDEC


Brady Mountain
28
68
Buck Creek
Cox Branch
Clear Branch
Goodstock Branch
Mill Cave
Daddys Creek
Basses Creek
Ivy Branch
Cumberland Trail
Brady Mountain
Daddys Creek
Sequatchie River
Grassy Cove Creek
Daddys Creek
Coal Creek
Garrison Fork
Whites Creek
Selby Creek
Piney River Watershed
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
Need Access Point
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

BUCK CREEK COVE

Location – (N35.0325, W85.9269) Buck Creek Cove is located in Franklin County approximately 3.8 air miles south of Sherwood and 2.0 air miles northwest of Anderson, in the escarpment of the Cumberland Plateau. (See Carter Mountain map).

Description – The cove ranges from 700 - 1700 feet in elevation and drains generally southeasterly. From elevations of approximately 800 - 1200 feet the cove consists of a mixed mesophytic forest with Monteagle limestone cliffs and outcrops of various sizes. An unusual blue ash–giant cane community be can found sporadically in the calcareous areas. A portion of the cove was timbered by mule circa 1980. Above approximately 1300 feet the strata grades from Monteagle limestone to sandstone, with a concomitant change in cover to species adapted for drier, acid soils.

Significance: – Site Importance Outstanding (B1) - Buck Creek Cove is considered the type locality for the painted snake-coiled forest snail (*Anguispira picta*), which is federally threatened and state endangered. At one time the species was thought only to occur here, but surveys conducted in 2003-04 documented the species in similar habitats north of the cove and on the opposite side of the Crow Creek Valley (DNA 2003, DNA 2004). Currently *A. picta* is known from approximately 12 miles of Cumberland Plateau escarpment, all in the immediate Sherwood area. Nearly 20% of the snail's known range lies in Buck Creek Cove. The cove remains of great conservation value, in part because of the current owners' sensible stewardship of the property.

A. picta is locally abundant on limestone outcrops and cliffs on both sides of the cove, from approximately 850'-1200' elevation. During wet periods the snails may be seen grazing on vegetation or detritus on the surface of the limestone, and during drought or inclement conditions will apparently retreat to crevices that frequent the Monteagle formation. Though the species is most often associated with deeply shaded mesic slopes, it has been found on much drier west-facing slopes in other parts of its range (DNA, 2003).

Strategy: – Currently none of the snail's range is on public land, and a portion of occupied habitat is proposed for a limestone quarry. Ideally, high-quality sites will be brought into public ownership or protected through a conservation easement. The long-time owners of Buck Creek Cove (M/M Bobby Hoosier) have previously declined outright sale of the property or application of a conservation easement. The Hoosier family has owned the property for over 100 years, and in fact, Mr. Hoosier's grandfather was working the property at the time the snail was first collected and described (1906). Nonetheless, the family should again be approached about conservation instruments, as both M/M Hoosier are nearing retirement age.

Land Protection Needs: - 600 acres at an estimated cost of $660,000.

Potential Partners: – USFWS, TWRA, TNC, TDEC.

CANEY HOLLOW CAVE

Location - (N35.1217, W86.2633) Caney Hollow Cave is located in Franklin County 3 miles southeast of Lexie Crossroads, on the east side of Caney Hollow, 0.6 mile north of the road between Lexie Crossroads and Old Salem. (See Mingo Swamp map)

Description - (Geologic horizon - Catheys formation) - From Barr (1961): "Caney Hollow Cave is locally well-known. It has three mouths, 50 yards apart. The lower two are 8 feet high and 15 feet wide and are connected by a passage of the same dimensions. The third is a hole 2 feet by 3 feet connected to the main passage by a short side passage. The main cave trends northwest and is 1,200 feet in length. An additional 725 feet of passages, very irregular and containing much silt and gravel fill, were explored to the southwest and west of the main cave.

A crawlway leads from the second entrance into a room 10 feet high, 15 feet wide, and 100 feet long. The main cave then skirts a breakdown for 220 feet and intersects a large collapse dome to the left (at about 465 feet). Breakdown here has formed a chamber 30 feet in diameter and 8 feet high, the roof of which extends upward for about 6 feet into the Chattanooga shale. From this point an easily traversable walking passage leads back to a circular chamber 40 feet in diameter and 8 feet high, where the cave forks. The two forks form a loop. The more direct route to the northwest termination of the cave (in a breakdown) leads through a high, narrow stream canyon between 960 and 1,050 feet (from the first mouth of the cave), turns left from 1,050 to 1,130 feet through a wide, mud-floored passage to a breakdown, bends northwest again, and ends in breakdown at 1,200 feet from the mouth. A complex and highly irregular series of passages extends southeast from the breakdown for about 600 feet and eventually connects with the main cave again at the fork.

The cave contains several attractive formations, but few of them are large. Numerous small, white stalactites and some helicto-stalactites may be seen. A stream flows through the lowest level and emerges below the first mouth, and several side passages end in water-filled sumps. A large colony of bats inhabits the cave in summer, and extensive guano deposits occur in the larger rooms.

Another cave opens on the right bank of Caney Creek 300 yards north of Caney Hollow Cave. The mouth is 60 feet wide and 10 feet high, but the cave itself appears to be shallow and is not readily penetrable. It is immediately below the Chattanooga shale."

Significance - Site Importance High (B3) - Caney Hollow Cave provides a summer roost for approximately 5000 state/federally endangered gray bats (*Myotis grisescens*) (Harvey, 2002). Previous estimates placed the number closer to 17000 (Harvey & Pride, 1986). Though the cave was initially reported as a maternity cave for gray bats, it is now more appropriately considered a bachelor or mixed summer roost. In the 1970's the endangered Indiana bat (*Myotis sodalis*) reportedly used the cave as a transition roost, though more recent observations could not verify this claim (Harvey, 2002; Harvey & Pride, 1986). The S1 cave-obligate beetle *Ptomaphagus fecundus* was described from this cave in 1963 (Barr, 1963), and was seen in some number in 2004 (Barr, pers comm.).

Strategy - Based on current information, the primary conservation target for this cave is the gray bat. As such, attention should be paid to securing the three known entrances and controlling access to the cave during the time when bats are roosting. Additionally, a forested buffer needs to be established to provide cover and potential temporary roosts for bats entering and leaving the cave. Acquisition and protection of other tracts, particularly those in close proximity to known roost locations in the cave, would be beneficial to maintaining the integrity of the system. Such control of lands above and adjacent to the cave should prove beneficial to the gray bat and *P. fecundus.*

Land Protection Needs – 6.6 acres at an estimated cost of $15,000.

Potential Partners – TWRA, USFWS, TNC, Bat Conservation International, Southeastern Cave Conservancy (SCCi), and TDEC.

CARTER SNA

Location – (N35.1211, W85.9196) Carter SNA is located in Franklin County approximately 2 miles northwest of Franklin State Forest.. (See Carter Mountain map).

Description - The Carter SNA was acquired in 1976 as a donation from the late Mr. Harry Lee Carter. This donation is one of the most significant natural areas in Tennessee, featuring the highly significant Lost Cove Cave. The cave has one of the most impressive entrances in the state with a height and width of 100 feet and 80 feet, respectively.

Significance - The SNA is only accessible from the Buggytop Trail, which crosses private property for much of its length. Several rare plants including Cumberland rosin weed (*Silhium pinnatifidum*) and leafcup (*Polymia lavigata*) are found on this private area. The cave and surrounding area provide habitat for rare animal species including the Tennessee cave salamander and gray bats.

Strategy - The strategy for future acquisitions to Carter SNA is to acquire in-holdings, properties surrounding the park for access or access control, watershed protection, and properties that contain representative forest cover types of the Cumberland Plateau, escarpment and gorges, that further the wildlife, aesthetics, interpretive, and recreation missions of the State Park System.

Land Protection Needs – 1,056 acres at an estimated cost of $900,000.

Potential Partners - The Friends of South Cumberland State Recreation Area, TNC, and Land and Water Conservation Fund.

CARTER MOUNTAIN

Location – (N35.0693, W85.0110) Carter Mountain is a very large project area which includes several sub-projects. It is located approximately ten miles south of Winchester in Franklin County. The area is on the western escarpment of the Cumberland Plateau on the Tennessee-Alabama state line.

Description – The property lies in a rugged region and includes several karst features such as caves, rock cliffs, springs and waterfalls. Most of the area is forested with the uplands being mostly dry oak/hickory forest types containing several perched wetland habitats. The gorges and narrow valleys consist of mixed mesophytic forest types. The area offers panoramic views of the eastern "barrens" of the Nashville Basin and has long been a popular area with outdoorsmen. The area offered extensive outdoor recreational opportunities for many years and was even a WMA during the 1970's and 1980's.

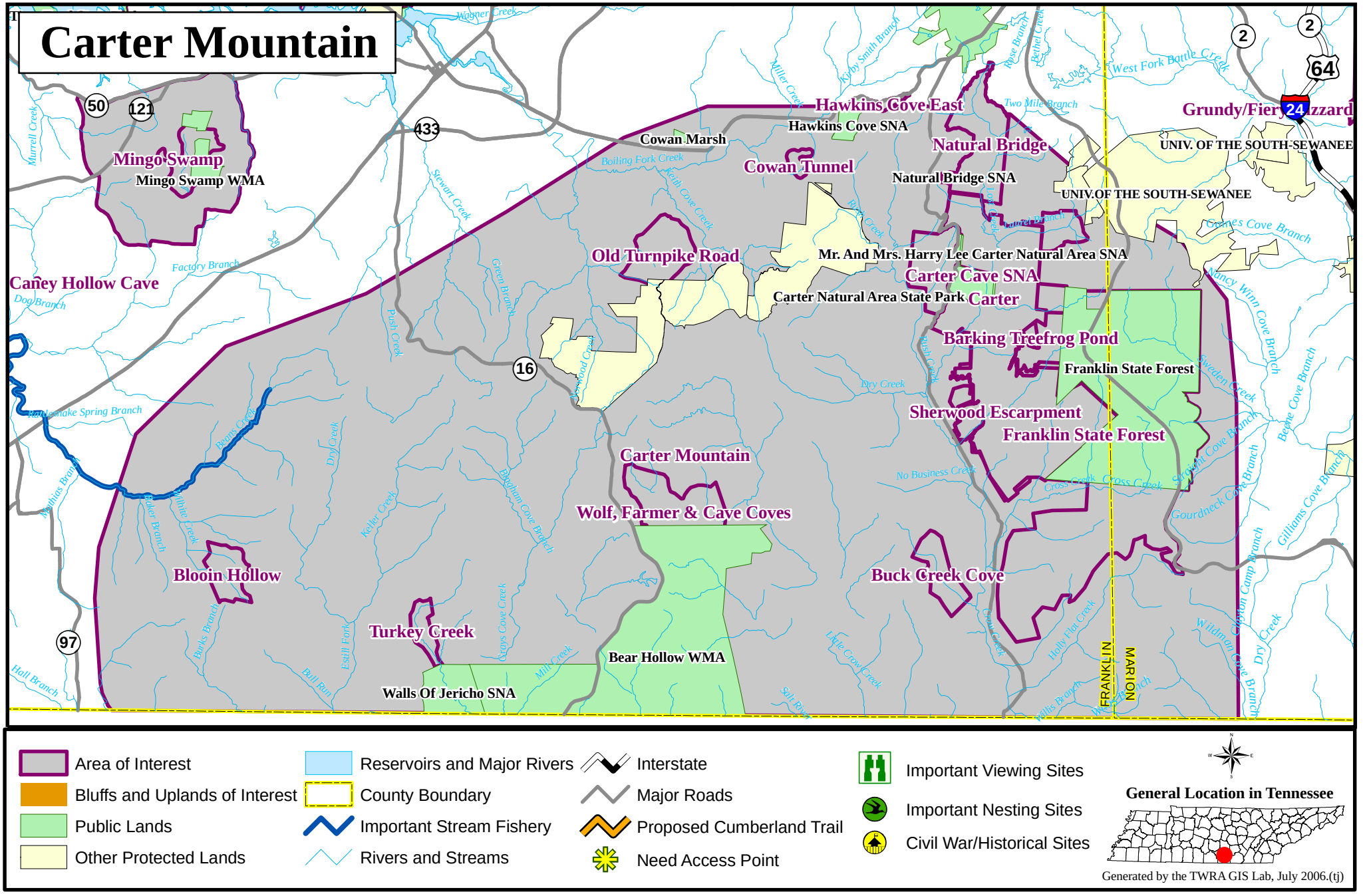
Significance – The entire Cumberland Plateau region, of which Carter Mountain is the southern anchor, is one of the most intact and biologically diverse areas remaining in the eastern US. The area provides a diversity of habitats for a tremendous number of neo-tropical birds, many of which are in decline on a continental scale. Twenty-six rare plants are found in the Carter Mountain region. The perched wetlands, though small in size, hold over 75% of all the rare plant species found on the Cumberland Plateau. There are 33 rare and imperiled animal species found in the Carter Mountain region. Areas within this project provide habitat for rare terrestrial and cave salamanders, rare tree frogs, fish, and mussels.

Key subprojects to the Carter Mountain project include Franklin State Forest, Carter SNA , Hawkins Cove SNA, and Natural Bridge SNA. Additionally, seven other sites of significance in the DNA program are within this project boundary including Buck Creek Cove, Turkey Creek, Blooin Hollow, Wolf, Farmer and Cave Coves, Sherwood Escarpment, Old Turnpike Rd, and Cowan Tunnel.

For almost two centuries this region has remained virtually intact as a functioning natural system due to its topography, location, and ownership. However, recent changes have made the region much more vulnerable to wide scale disturbance and threaten the habitats which have become globally significant.

Land Protection Needs – 38,460 acres at an estimated cost of $42,306,000.

Potential Partners – TNC has made Carter Mountain one of its top priorities and is already working to protect large acreages. There has been considerable discussion of trying to develop this project into a federal refuge or a national forest and investigation of those opportunities continues. NWTF has indicated an interest in protecting lands in this project area and making them accessible to users.


Carter Mountain
Mingo Swamp
Mingo Swamp WMA
Caney Hollow Cave
Old Turnpike Road
Hawkins Cove East
Hawkins Cove SNA
Cowan Marsh
Cowan Tunnel
Natural Bridge
Natural Bridge SNA
UNIV. OF THE SOUTH-SEWANEE
Mr. And Mrs. Harry Lee Carter Natural Area SNA
Carter Cave SNA
Carter Natural Area State Park
Carter
Barking Treefrog Pond
Franklin State Forest
Sherwood Escarpment
Franklin State Forest
Carter Mountain
Wolf, Farmer & Cave Coves
Buck Creek Cove
Blooin Hollow
Turkey Creek
Bear Hollow WMA
Walls Of Jericho SNA
Grundy/Fiery Gizzard
FRANKLIN
MARION
50
121
433
16
97
64
24
2
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

CATOOSA WMA

Location – (N36.0540, W84.7997) The Catoosa WMA is a approximately 79,700 acres in Cumberland, Morgan and Fentress Counties. It is located 20 miles north of Crossville and stretches east across the Cumberland Plateau and into the Cumberland Mountains.

Description - The topography of this area includes the typical, gently rolling terrain on the west and steep mountains to the east. Lying within the Emory River watershed, Catoosa is divided by a number of major stream drainages including the Obed River, Daddy's Creek, Clear Creek and Otter Creek. Elevations on Catoosa range from about 1,100 feet to over 2,300 feet. The soils on Catoosa for the most part, come from sandstone, shale, or sandstone conglomerate and the fertility is low to moderately low. Catoosa is more than 89 percent covered by forests.

History - It is suspected that some 5,000 years ago a primitive tribe of Native Americans settled in the Catoosa area. These first inhabitants were hunter/gatherers who lived under the overhanging rock shelves along the bluffs formed by the area's streams. White settlers passed over the plateau as early as 1796 on their way to the Nashville area, but few settled until 1830. In the late 1870's, near the town of Genesis, a stream operated sawmill was built. By 1877, a railroad operation was in place, followed by several timber and coal operations through 1930's. During the depression, little work was carried on, and the residents that stayed became dependent on the grazing of their livestock.

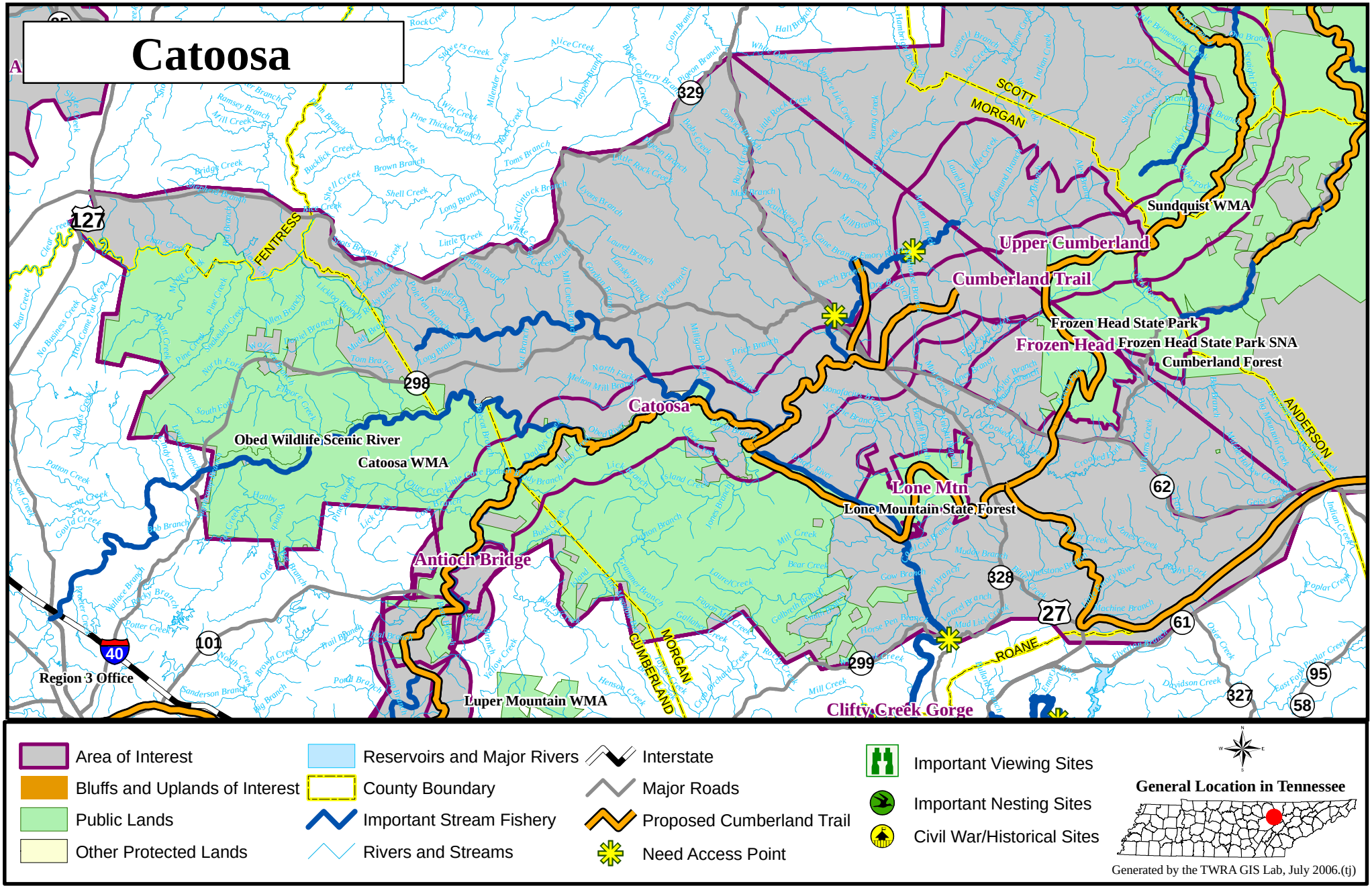
In the early 1940's the Crossville Exchange Club appointed a committee to encourage the state to purchase a large tract of land for a WMA. With this first step the Catoosa WMA was established in 1942 with the initial purchase of 63,000 acres with Pittman-Robertson federal aid funds as a wildlife restoration project mandated for wildlife conservation.

Significance - The entire Cumberland Plateau region is one of the most biologically diverse areas remaining in the eastern US, particularly notable is a tremendous number of neo-tropical birds. The area contains several caves that are home to at least one federally endangered species, the Indiana bat, as well as several other subterranean species such as the blind crayfish. The black mountain dusky salamander, deemed in-need-of-management, is known to occur in this general area and is restricted to the Cumberland Plateau. Several threatened species inhabit this area that includes the pine snake, the Tennessee cave salamander, the spotfin chub and the purple bean pearly mussel. The plateau has had occurrences of the peregrine falcon and golden eagle, as well as providing nesting habitat for several special concern bird species.

Strategy – The strategy for future acquisitions to the Catoosa WMA is to acquire in-holdings, adjacent properties for access or access control, watershed protection, and properties that contain representative forest cover types of the area that further the wildlife, aesthetics and wildlife recreation mission of the WMA system.

Land Protection Needs – 10,600 acres at an estimated cost of $16,600,100.

Potential Partners —NWTF, RMEF, QU, and TWRA.


Catoosa
SCOTT
MORGAN
FENTRESS
Sundquist WMA
Upper Cumberland
Cumberland Trail
Frozen Head State Park
Frozen Head
Frozen Head State Park SNA
Cumberland Forest
ANDERSON
Catoosa
Obed Wildlife Scenic River
Catoosa WMA
Lone Mtn
Lone Mountain State Forest
Antioch Bridge
CUMBERLAND
MORGAN
ROANE
Region 3 Office
Luper Mountain WMA
Clifty Creek Gorge
127
329
298
62
328
27
61
101
40
299
95
327
58
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

CEDAR CREEK SULLIVANTIA SITE

Location - (N36.3563, W84.0360) This approximately 83 acre site is located in Campbell County. The site is the east facing slopes at approximately River Mile 2.7 of the Cedar Creek Embayment of Norris Lake. (See Upper Cumberland map)

Description - The property is approximately 83 acres and consists of east facing slopes and cliffs of Cedar Creek Embayment of Norris Lake. A spring fed creek flows over the face of a cliff above the embayment.

Significance - Site Importance Moderate (B4) - Several state listed plants are known from the site. This protection planning site is the only location in Tennessee for special concern listed Sullivantia (*Sullivantia sullivantii*), a critically imperiled plant species (S1) within the state. In addition, the state endangered and imperiled (S2) Kentucky rosinweed (*Silphium wasiotense*) is found on this site. A state rare tree, northern white-cedar (*Thuja occidentalis*), is also located along the bluff line above the Cedar Creek Embayment. Tennessee is the southern-most extent of this widely distributed northern tree. It is thought that these Tennessee populations are remnant populations from the last glacial period (20,000 years ago). Individuals on similar bluff lines elsewhere may be as old as 400-500 years old (Cane Creek Falls – Falls Creek Falls State Park and SNA). The presence of northern white cedar may also indicate a presence of Appalachian Cliff White-cedar Woodland, a globally imperiled vegetation community.

Strategy - The strategy for acquisition at the Sullivantia Site is to acquire properties within and adjacent to the site design (site boundary) for access or access control, watershed protection, and preservation of rare species and representative communities. Preservation of these rare species will provide educational opportunities for area colleges, universities, and the general public, and work toward preserving Tennessee's natural heritage.

Land Protection Needs – 82.3 acres at an approximate cost of $283,000

Potential Partners - TVA, TNC, Forest Legacy

CHIMNEY ROCK

Location – (N36.4404, W84.0594) Chimney Rock is located in Campbell County.. It lies just east of Sundquist WMA and north east of the city of LaFollette, and straddles the Ridge and Valley and the Cumberland Mountains Physiographic Provinces.

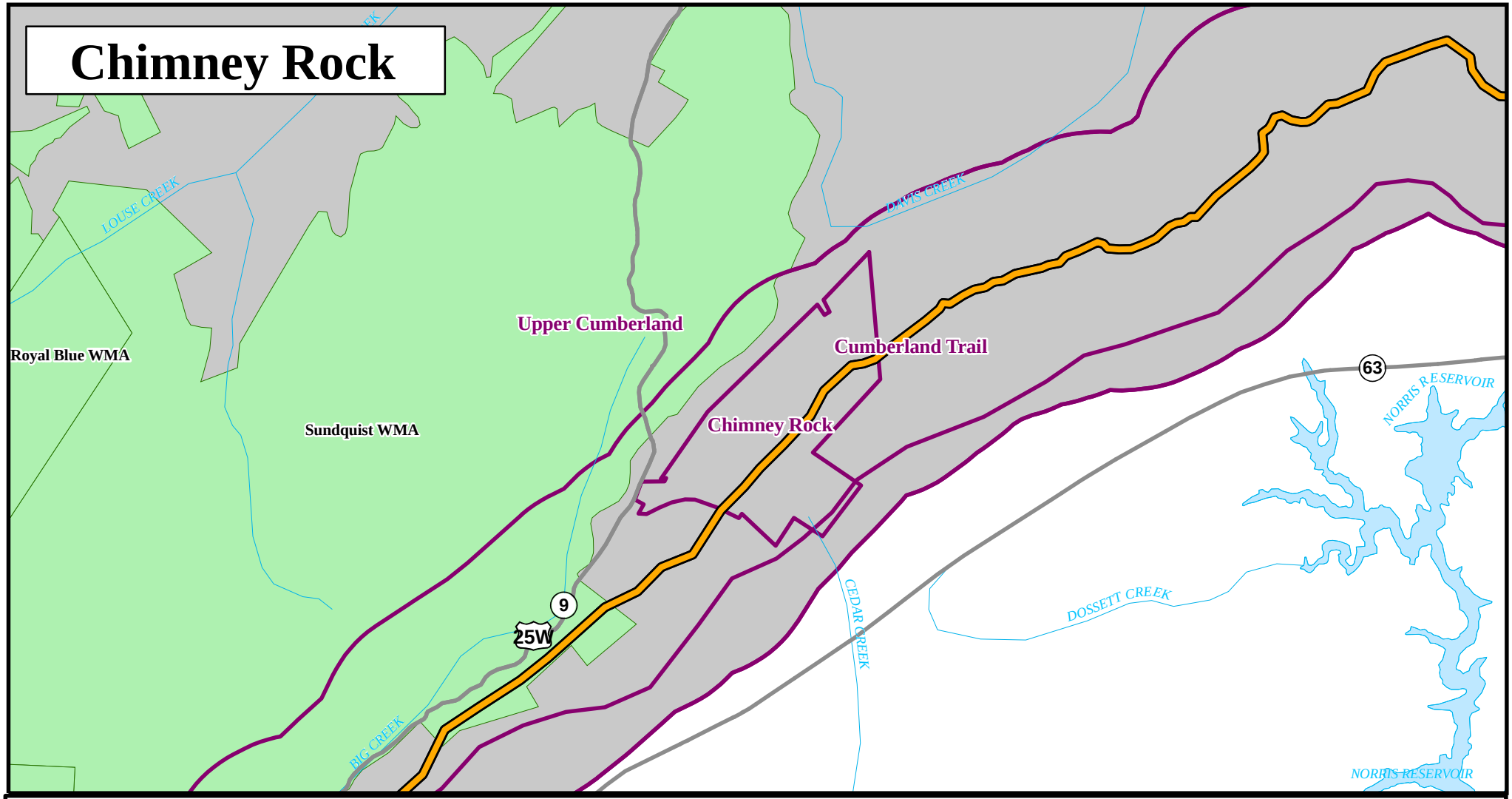
Description – Chimney Rock is a forested area containing an extensive variety of geologic features representative of the physiography between the Ridge and Valley Province and the crest of the Cumberland Mountains. Unusual features include numerous rock "chimneys", two natural bridges, several significant rock houses, and panoramic vistas that overlook the Great Valley of East Tennessee.

Significance – (B5) The significance of Chimney Rock lies in its unique concentration of geologic features, including a garden of at least 12 chimneys (vertical, standing, often spire-shaped, natural rock formations) ranging in height from 30-60 feet, and arches. This site was identified as early as 1986 as a Proposed Safe Growth Natural and Cultural Acquisition target. It is also an important acquisition need for this section of the Cumberland State Scenic Trail.

Strategy - The strategy for acquisition at Chimney Rock is to acquire properties within and adjacent to the site design (site boundary) for access or access control, preservation of its geologic features, watershed protection, preservation of rare species and representative communities, and for the Cumberland Trail corridor.

Land Protection Needs – 1,183 acres at a cost of $1,183,000.

Potential Partners – TDEC and TWRA


Chimney Rock
Upper Cumberland
Cumberland Trail
Chimney Rock
Royal Blue WMA
Sundquist WMA
LOUSE CREEK
DAVIS CREEK
CEDAR CREEK
DOSSETT CREEK
BIG CREEK
NORRIS RESERVOIR
NORRIS RESERVOIR
63
9
25W
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

CHIMNEYS SNA

Location – (N35.2120, W85.5764) Chimneys is on the Cumberland Plateau located in Marion County. It is accessible via Highway 108 between Whitwell and Palmer.

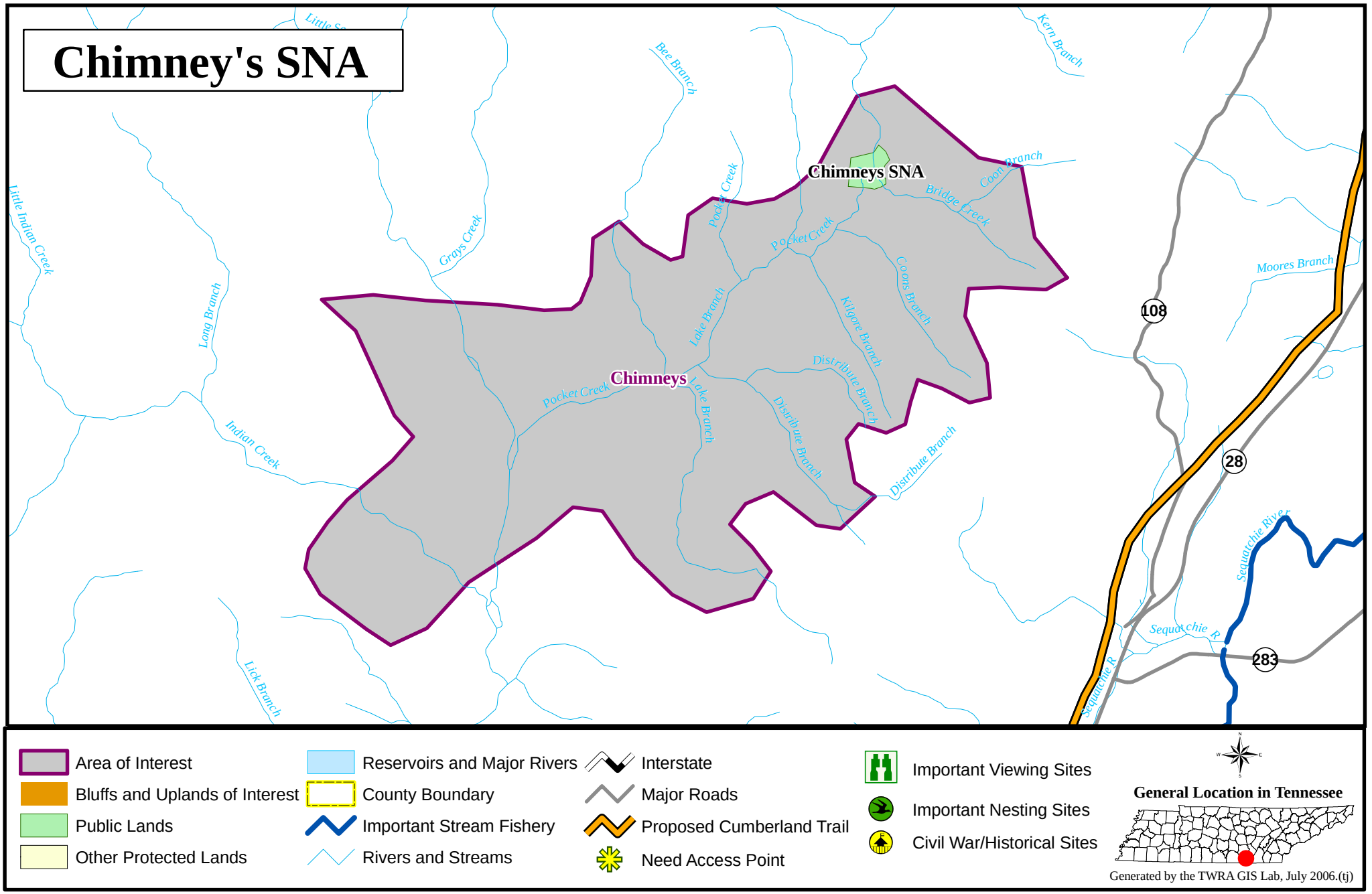
Description - The Chimneys are located where Pocket Creek cuts through Cumberland Plateau sandstone forming Pocket Gorge. Pocket Creek has sculpted the impressive feature known as the Chimneys over vast geological time. They are two isolated, 200-feet high, towering pinnacles of Pennsylvanian Warren Point sandstone connected to a central base. A natural window forms at the base. The pinnacles and natural bridge rise from the gorge floor and are nearly as high as the surrounding bluff. The natural area is adjacent to the Chimneys Scenic Park.

Significance - A dry oak-pine woodland surrounds the Chimneys on the surrounding bluffs. Chestnut oak and Virginia pine are common to this area. Maple-leaf viburnum and sweet-shrub are also often found in these types of areas. Small pockets of glade and barrens vegetation can be found in a few areas with shallow soil on dry upper and bluffs. There is an old growth hemlock forest in the gorge comprised of densely forested hemlock, chestnut oak, magnolia or cucumber tree, and striped maple. A thicket of rosebay rhododendron grows along the creek, making passage to the base of the Chimneys challenging. There are numerous ferns and mosses covering sandstone talus boulders at the base the steep slopes. Some of the steepest slopes are wet seep cliffs that support a diversity of mosses, liverworts, and other plants not found elsewhere on the site.

Strategy - Presently the State owns 33 acres of this area. The site conservation plan proposes the protection of 5,390 acres that include the remainder of the gorge and bluff line. This will ensure protection of the gorge view corridor, geologic features, and plant and animal community and enhance greater public access opportunity to the area.

Land Protection Needs – 5,360 acres at an estimated cost of $4,300,000.

Potential Partners - Marion County Government, Chimney's Scenic Park Association, U.S. Steele Corporation, and TDEC.


Chimney's SNA
Chimneys SNA
Chimneys
Bee Branch
Kern Branch
Coon Branch
Bridge Creek
Pocket Creek
Pocket Creek
Coons Branch
Kilgore Branch
Distribute Branch
Lake Branch
Pocket Creek
Lake Branch
Distribute Branch
Distribute Branch
Little Indian Creek
Long Branch
Grays Creek
Indian Creek
Lick Branch
Moores Branch
108
28
283
Sequatchie River
Sequatchie R
Sequatchie R
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

CLIFTY CREEK GORGE

Location – (N35.9500, W84.5861) This site is located just upstream of the confluence of Clifty Creek with the Emory River in Morgan and Roane Counties about 2 miles northwest of Harriman.

Description – This approximately 210 acre area contains steep, inaccessible 200 ft. high bluffs above Clifty Creek, numerous springs and waterfalls, and a population of Virginia spirarea. Clifty Creek is a typical high gradient Cumberland Plateau stream. The gorge vegetation is primarily eastern hemlock dominated mixed-mesophytic forest. TNC owns approximately 78 acres of this river gorge.

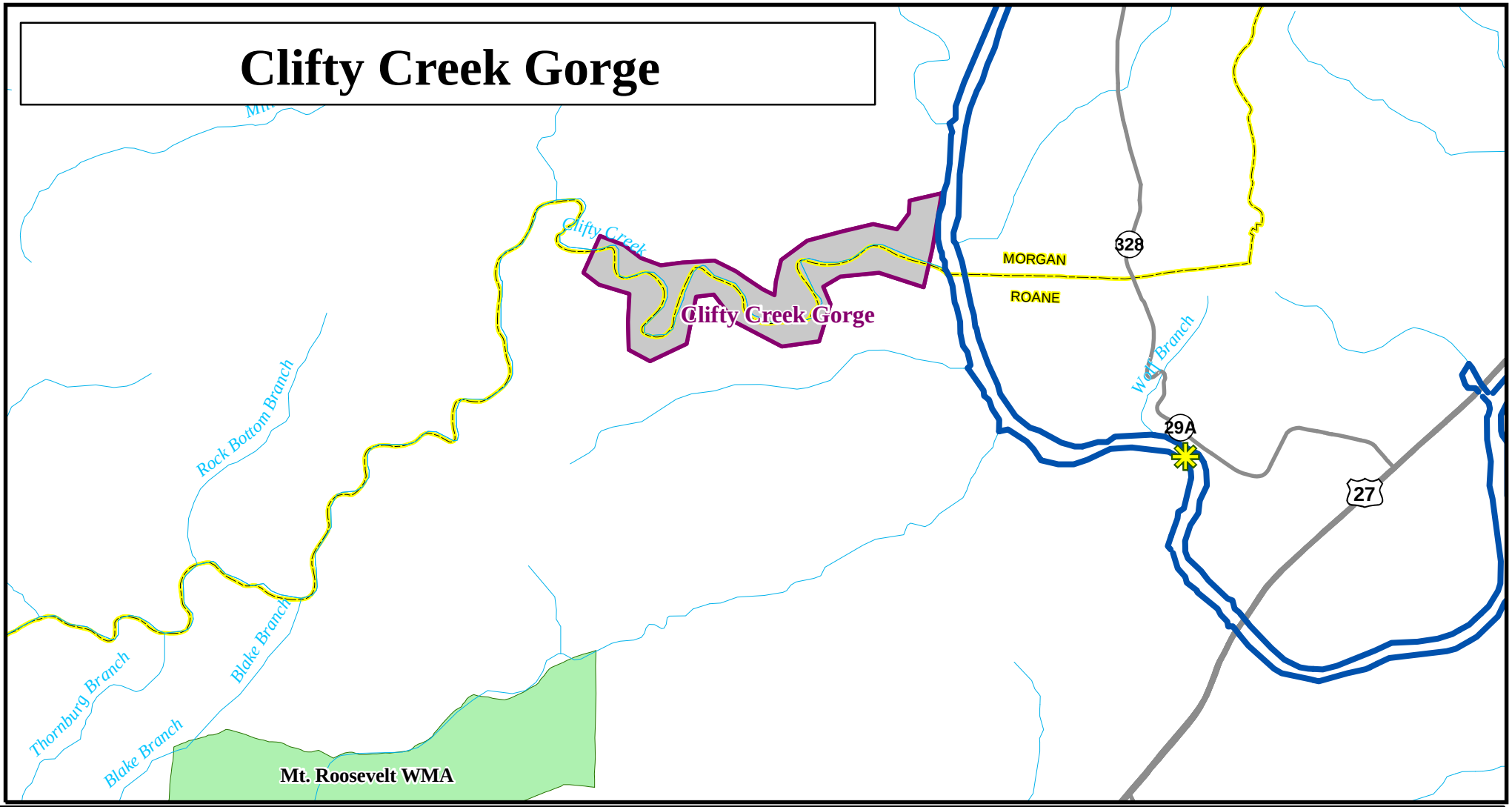
Significance – Site Importance Very High (B2) - Aside from the scenic qualities of the steep-sided stream gorge, a significant population of Virginia spiraea (*Spiraea virginiana*) is known from this stretch of Clifty Creek. Virginia spiraea is federally threatened and state endangered, and considered very rare and imperiled globally (G2) and within the state (S2) according to Natural Heritage data. A few hundred stems of the plant scattered in four areas along the stream have been documented within this population.

Strategy – Presently, TNC protects only half of this site on the Morgan County side of the gorge. In order to protect the population of Virginia spiraea additional tracts, especially on the Roane County side of the gorge, require protection. Portions of as many as twelve tracts would require protection. The portion of each tract from the creek to the top of the bluff on both sides of the creek should be the priority for acquisition. A Recovery Land Acquisition grant(s) from the USFWS could be obtained to purchase tracts of land along this river corridor. Matching funds from the State Land Acquisition Fund would be necessary.

Land Protection Needs - 210 acres at an estimated cost of $166,000.

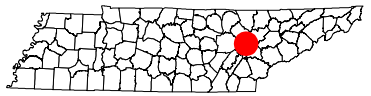
Potential Partners – TNC and TDEC.

Clifty Creek Gorge



Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites

General Location in Tennessee



Generated by the TWRA GIS Lab, July 2006.(tj)

COLDITZ COVE SNA

Location – (N36.3553, W84.8726) Colditz Cove is on the Cumberland Plateau located in Fentress County. It is located east of Allardt approximately one mile south Hwy 52.

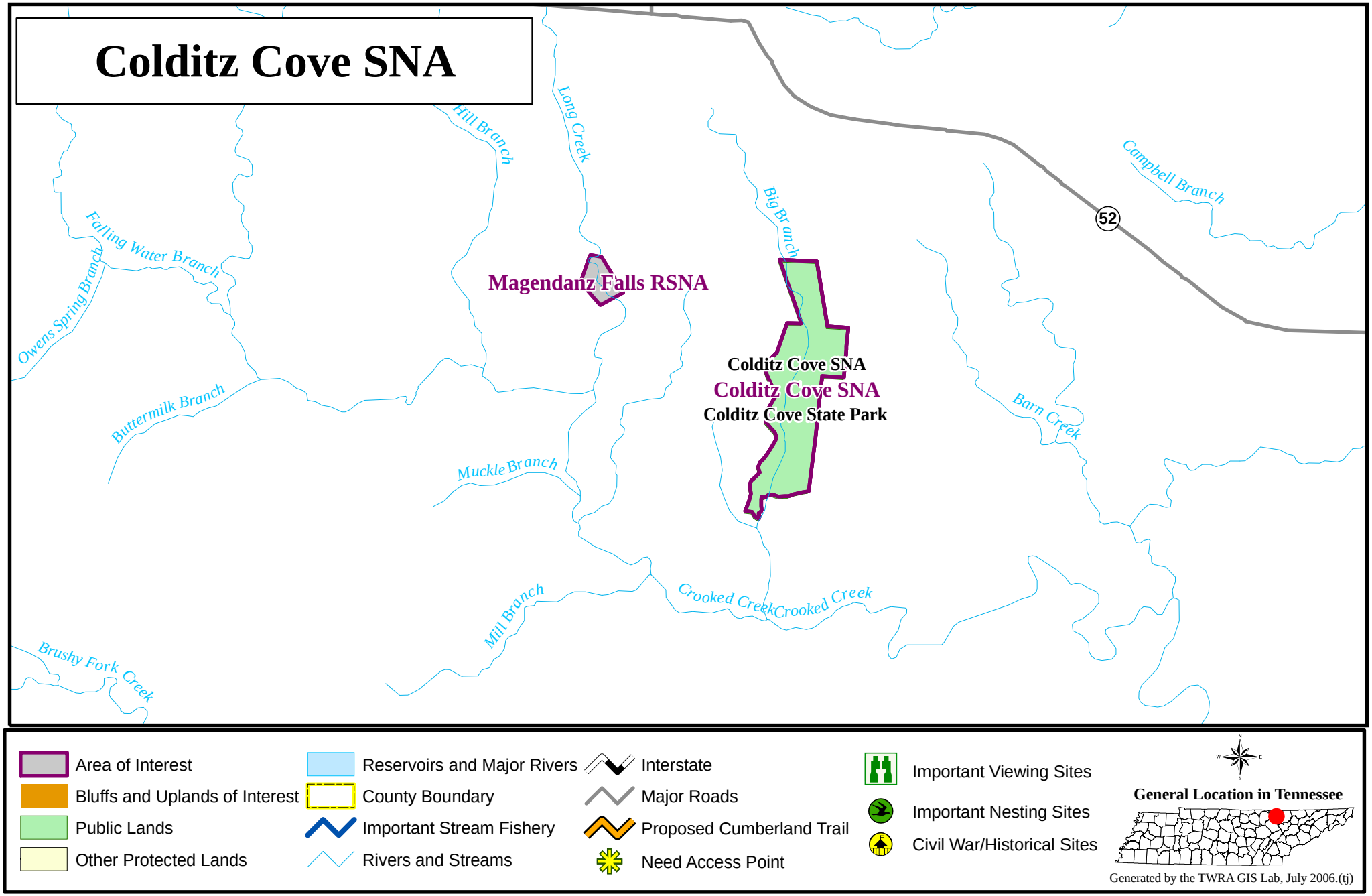
Description - Colditz Cove is a 165-acre natural area. Its most impressive feature is Northrup Falls. This is one of Tennessee's most stunning waterfalls plunging more than 60 feet over a protruding rock ledge into a scenic, narrow, gorge along Big Branch Creek. The waterfall is named for the family who settled here and operated a mill above the falls in the 1800's. These high cliffs and "rock houses" (cave-like overhangs) at the falls and along the creek gorge were once used by cliff-dwelling Woodland Indians over 3,000 years ago.

Significance - Colditz Cove has several relatively rare animals including the black mountain dusky salamander (*Desmognathus welteri*), the woodland jumping mouse (*Napaeozapus insignis*), the smoky shrew (*Sorex fumeus*), the pygmy shrew (*Sorex hoyi*), and the southeastern shrew (*Sorex longirostris*). The forest above the falls supports a mixed oak-hickory forest dominated by white oak with Virginia pine scattered with more xeric species on the southwest bluff where oaks, hemlock, Virginia and short leaf occur. A mixed mesophyptic forest below the falls is comprised of large hemlocks and white pines and hardwoods, with trees over 200 years old. Several species of ferns, sedges, rushes, and plants like grass-of-parnassus and alumroot are associated with this waterfall-gorge habitat.

Strategy - Presently the State owns 165 acres of this area. The site conservation plan proposes the protection of 503 additional acres that include the remainder of the gorge and bluff line. This will ensure protection of the gorge view corridor, geologic features, and plant and animal community and enhance greater public access opportunity to the area.

Land Protection Needs – 503 acres at an estimated cost of $350,000.

Potential Partners - TDEC**.**


Colditz Cove SNA
Hill Branch
Long Creek
Big Branch
Campbell Branch
52
Falling Water Branch
Owens Spring Branch
Magendanz Falls RSNA
Colditz Cove SNA
Colditz Cove SNA
Colditz Cove State Park
Buttermilk Branch
Barn Creek
Muckle Branch
Mill Branch
Crooked Creek
Crooked Creek
Brushy Fork Creek
Area of Interest
Bluffs and Uplands of Interest
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Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

CORDELL HULL STATE HISTORIC PARK

Description – (N36.5783, W85.1841) The Cordell HullBirthplace State Historic Park consists of nearly 45 acres in Pickett County. The site consists of a replica of the Hull cabin, an activity building and a museum. The site also includes Bunkum Cave, a site where Cordell's father set up a moonshine still.

Location - Cordell Hull Birthplace and Museum is located just a few miles west of Byrdstown. It is 1.5 miles off Hwy. 111 on State Route 325.

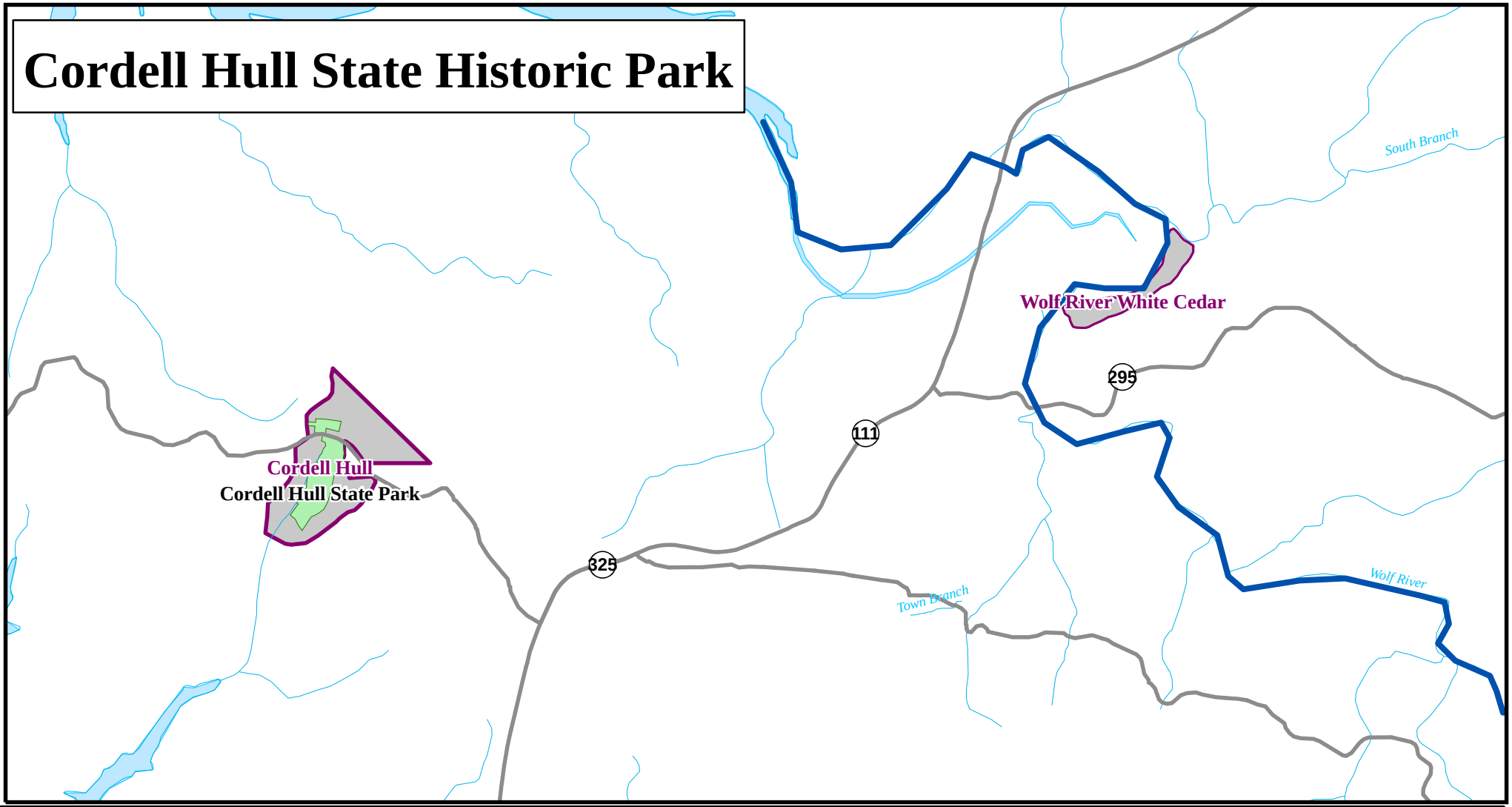
Significance – Cordell Hull was a US senator. Secretary of State under Franklin D. Roosevelt, and received the Nobel Peace Prize in 1945. This park is responsible for the preservation of the birthplace as well as to provide historic and natural resource interpretive opportunities for the public.

Strategy - The strategy for future acquisitions for Cordell Hull Birthplace is to acquire properties surrounding the park for access or access control, watershed protection, and properties that contain representative forest cover types of the Cumberland Plateau and to further enhance the interpretive and recreation mission of the park.

Land Protection Needs – 42 acres at an estimated cost of $157,200

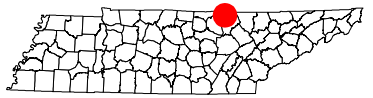
Potential Partners - Founded in 1989, the Friends of Cordell Hull is a non- profit organization dedicated to preserving the legacy and statesmanship of Cordell Hull; to advocate the traditional American values, acquaint school children and the general public of the contributions Cordell Hull made to the citizens of the world; to promote involvement of the public in all activities concerning the life, times and accomplishments of Cordell Hull through the Cordell Hull Park.

Cordell Hull State Historic Park



Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites

General Location in Tennessee



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COVE LAKE STATE PARK

Location – (N36.3120, W84.2143) Cove Lake State Park is located at Caryville in Campbell County on the shores of Cove Lake. (See Upper Cumberland map)

Significance - Cove Lake State Park is situated in a picturesque valley surrounded by the towering Cumberland Mountains. This park is a bird watchers paradise and provides ample opportunity for nature enthusiasts, while also providing a variety of recreational opportunities. Most of the park facilities are handicap accessible, including two playgrounds.

The park includes a 106 site modern campground. It also has a swimming pool, restaurant, picnic shelters, boat rentals and meeting rooms.

Strategy - The strategy for future acquisitions for Cove Lake State Park is to acquire in-holdingss and properties surrounding the park for watershed protection and properties that contain representative forest cover that further the wildlife, aesthetics, interpretive and recreation missions of Cove Lake State Park.

Land Protection Needs – 51 acres at an estimated cost of $170,000.

Potential Partners: TCF, TNC, and TDEC.

COWAN TUNNEL

Location– (N35.1611, W85.9778) The Cowan Tunnel site is located on the western slope of the Cumberland Plateau in Franklin County approximately 1.5 miles southeast of Cowan along the CSX railroad. (See Carter Mountain map)

Description – The western slope of the Cumberland Plateau in this approximately 127 acre area consists of dry rocky woods. The second-growth forest is composed of mixed-hardwoods and eastern red cedar growing over limestone bedrock. The CSX railroad passes through the Cumberland Plateau nearby via the Cowan Tunnel. The old Louisville & Nashville railroad traverses the slope from Sewanee to Cowan and bisects the site. The Cowan Tunnel site is between the Hawkins Cove SNA, which also protects a population of the Cumberland rosinweed, and TNC's David Carter Preserve.

Significance – Site Importance Moderate (B4) - The Cowan Tunnel site is the type locality (location from where a species is first described) for Cumberland rosinweed (*Silphium brachiatum*). Augustin Gattinger first collected the plant from this area in 1887. The type locality for this plant species does not contain a great number of individuals, but it is remarkable that the population still exists more than 100 years after Gattinger's discovery. Cumberland rosinweed is known only from Tennessee and Alabama along the western slopes of the Cumberland Plateau. Cumberland rosinweed is state endangered and is considered very rare and imperiled globally (G2) and within the state (S2) by Natural Heritage data. The site also contains an occurrence of the rare White prairie-clover (*Dalea candida*) which is considered secure globally (G5) but very rare within the state (S2).

Strategy – To purchase tracts of land that would protect the western slope of the Cumberland Plateau at the type locality for Cumberland rosinweed and potentially connect the Hawkins Cove SNA with TNC's David Carter Preserve.

Land Protection Needs – 127 acres at an estimated cost of $115,000.

Potential Partners – TNC, TWRA, South Cumberland Regional Land Trust, TDEC.

CUMBERLAND MOUNTAIN STATE PARK

Location – (N35.9049, W85.0115) Cumberland Mountain State Park is located in Cumberland County approximately 4 miles south of Crossville on Highway 68.

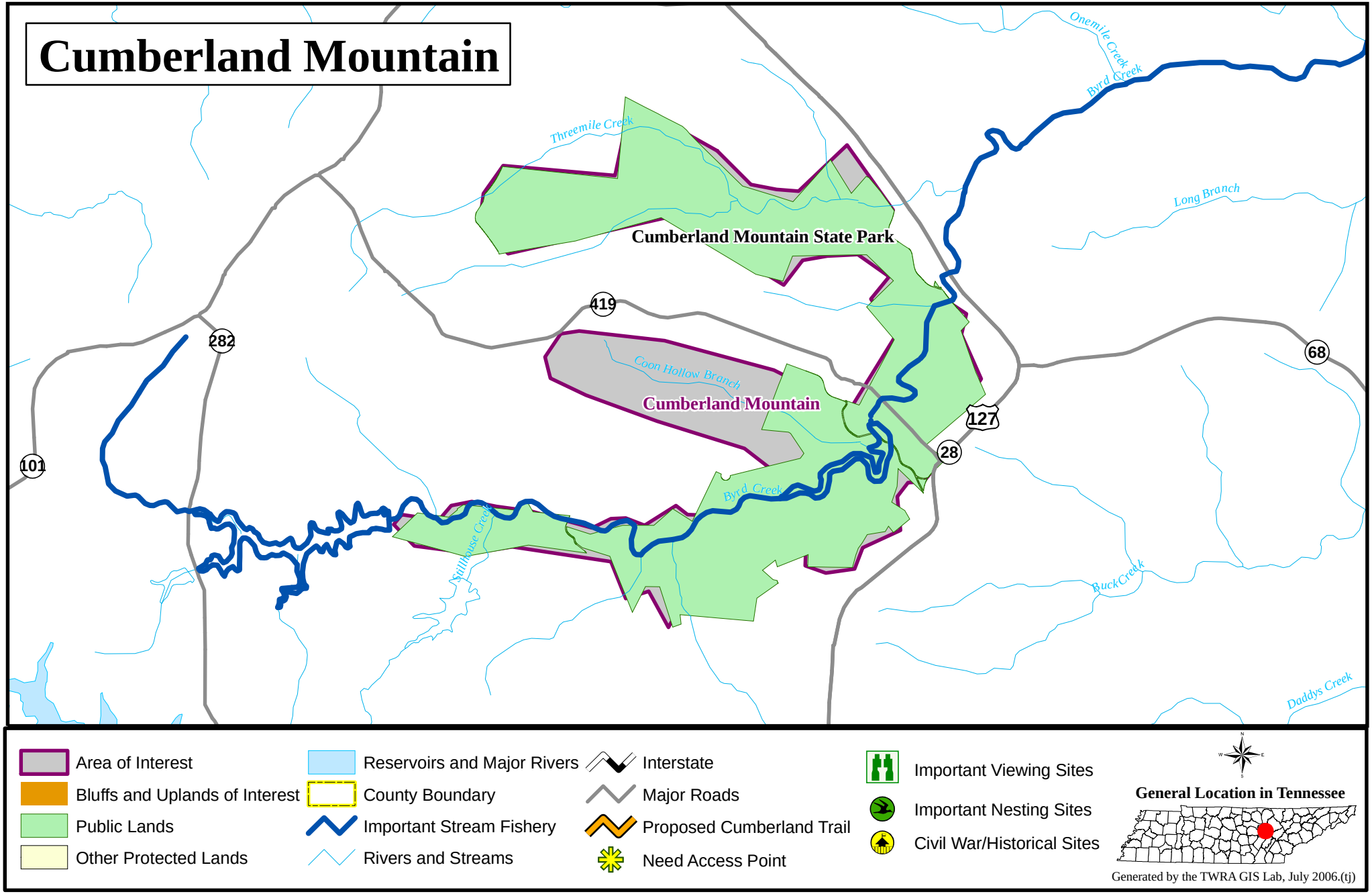
Description - Cumberland Mountain State Park is situated on the Cumberland Plateau, a segment of the great upland, which extends from western New York to central Alabama. It is said to be the largest timbered plateau in America. This 1,720-acre park was acquired in 1938 as a project of the Farm Security Administration to provide a recreational area for some 250 families selected to homestead on the Cumberland Plateau.

Significance - Cumberland Mountain State Park was acquired from the Federal Department of Agriculture as an integral component of the Cumberland Homesteads Project. The park was intended to provide recreational opportunities for some 250 families selected to homestead the "subsistence farms" in the general area of Cumberland County.

Strategy: - The strategy for future acquisitions for Cumberland Mountain State Park is to acquire properties surrounding the park that contain representative forest cover types of the Cumberland Plateau and those lands that enhance the wildlife, aesthetics, interpretive and recreation mission of the park.

Land Protection Needs – 142 acres at an estimated cost of $150,000

Potential Partners - TCF and other land conservancy groups.


Cumberland Mountain
Onemile Creek
Byrd Creek
Threemile Creek
Long Branch
Cumberland Mountain State Park
419
282
68
Coon Hollow Branch
Cumberland Mountain
127
28
101
Byrd Creek
Stillhouse Creek
BuckCreek
Daddys Creek
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
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CUMBERLAND STATE SCENIC TRAIL STATE PARK

Location - The Cumberland Trail runs from Cumberland Gap in Claiborne County to Signal Point Park in Chattanooga along the escarpments, gorges and Cumberland Mountains of the Cumberland Plateau. See Upper Cumberland project for map of northern half of Cumberland Trail State Park

Description - This Tennessee State Scenic Hiking Trail became Tennessee's 53rd state park in 1998. The Cumberland Trail is also Tennessee's first linear park, following a line of high ridges and deep gorges along or near the rugged eastern escarpment of Tennessee's Cumberland Plateau.

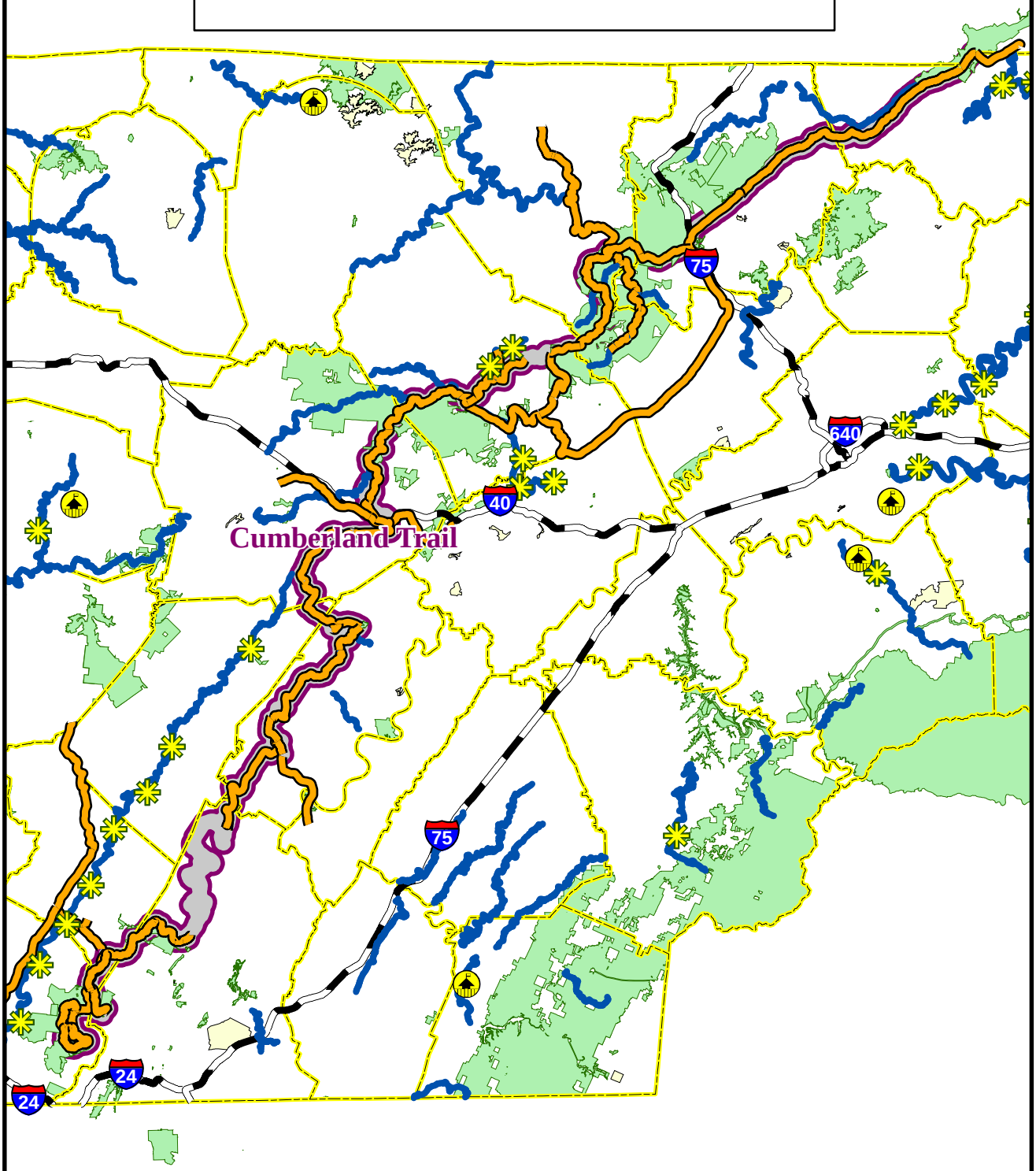
Significance - Upon completion, the Cumberland Trail State Park, the state's only linear park, will be 300 miles long, cutting through 11 Tennessee counties from the Cumberland Gap National Historic Park on the Tennessee-Virginia-Kentucky border, to Signal Point near Chattanooga.

Strategy - The strategy for future acquisitions to the Cumberland Trail is to acquire properties that will link contiguously across the entire length of the proposed trail route as they become available. Acquisitions will be justified through the established land acquisition plan for the Cumberland Trail State Park.

Land Protection Needs – 158,379 acres at an estimated cost of $97,500,000.

Potential Partners - The Cumberland Trail Conference is associated with the Tennessee Trails Association and its sole purpose is to construct, maintain and assist with the acquisition of trail corridor for the Cumberland Trail. TCF has been very active in assisting the state and the Cumberland Trail Conference in acquiring key tracts.

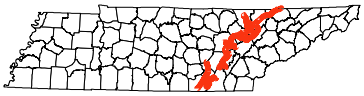
Cumberland Trail



Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
County Boundary

Important Stream Fishery
Interstate
Mississippi River Bike Trail
Civil War/Historical Sites
Need Access Point

General Location in Tennessee



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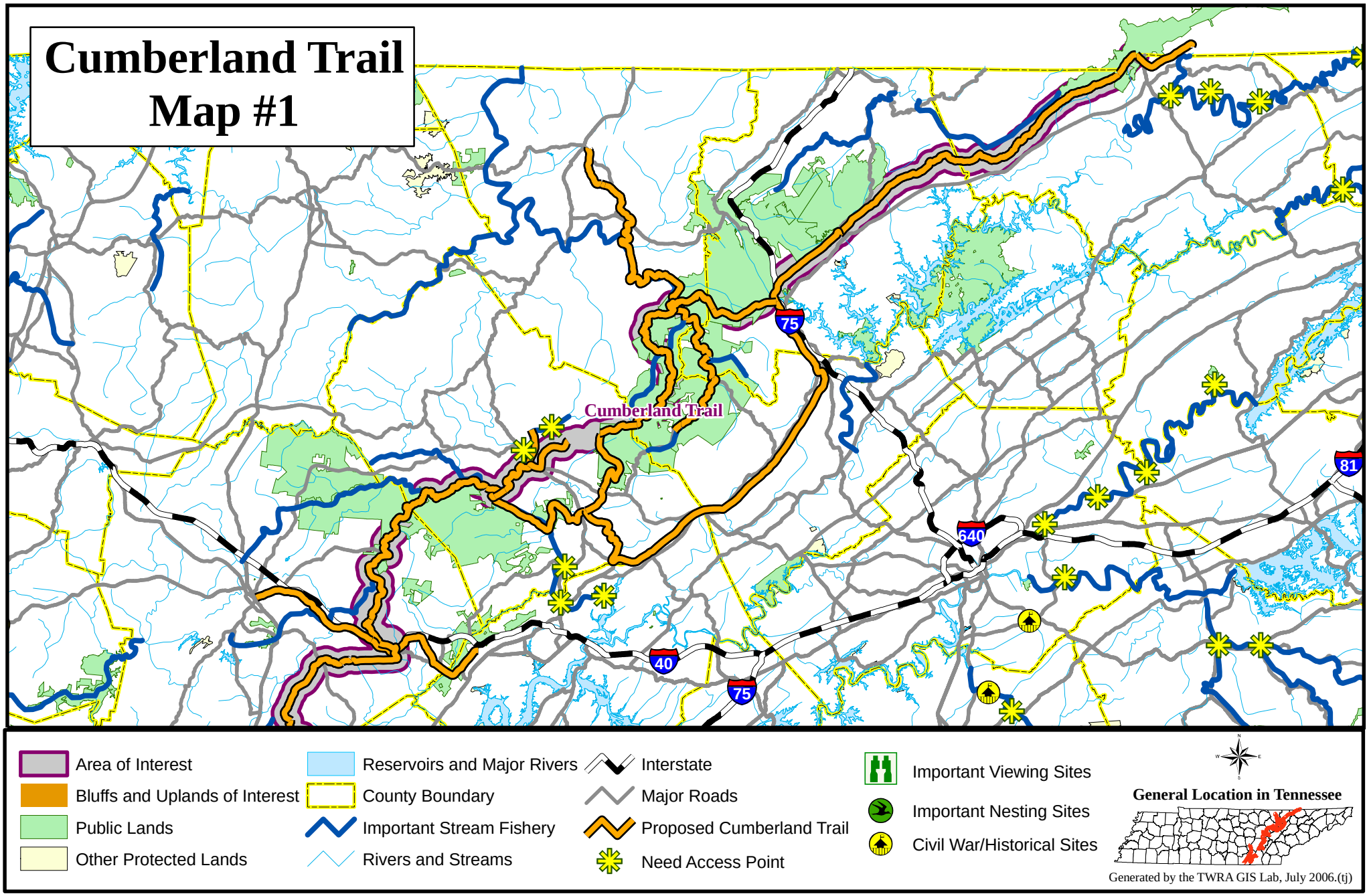
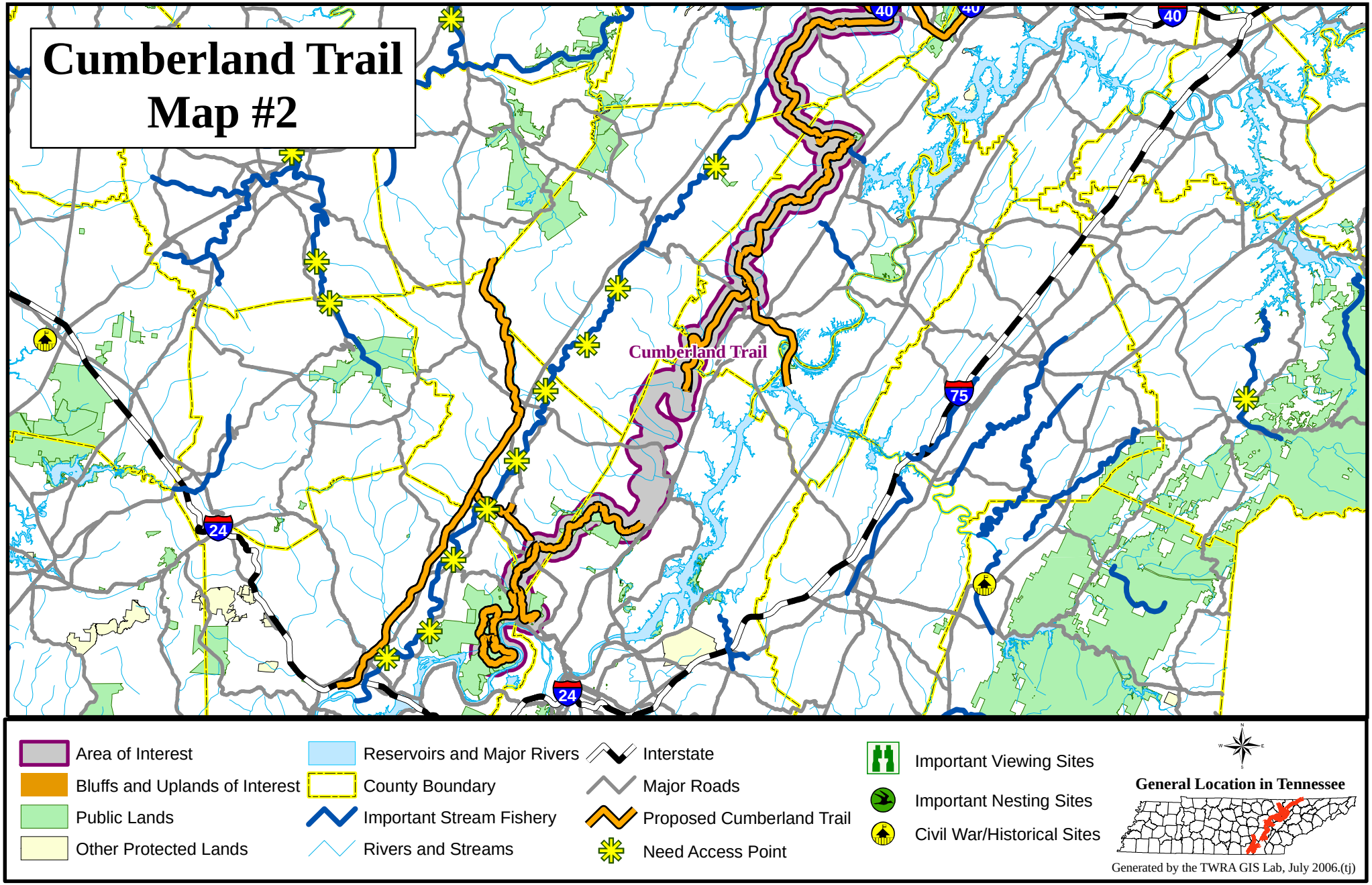

Cumberland Trail
Map #1
Cumberland Trail
75
81
640
40
75
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)


Cumberland Trail
Map #2
Cumberland Trail
40
40
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75
24
24
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

CUMMINGS COVE AND AETNA MOUNTAIN (RACCOON MOUNTAIN)

Location – (N35.0163, W85.4808) Cummings Cove and Aetna Mountain are located approximately 15 miles west of Chattanooga in Marion County. This area lies just south of the Tennessee River across from Prentice Cooper WMA. The area is also adjacent to lands already owned by the Tennessee River Gorge Trust and lies between Walnut Ridge and Sand Mountain.

Description – While the lowlands are sparsely inhabited by people, the top of the mountain contains less than 10 families, some of which have lived there for generations without electrical power or electricity. Historically the thriving town of Aetna was located here, but has long since been disappeared. While some residual mining continued until recently, most of the operations ceased in the early 1900's. Much of the area was acquired by Bowater prior to 1960. Some of the land was donated to the Tennessee River Gorge Trust in 1980 via the TNC. Additional lands (Cummings Cove WMA) was acquired a few years ago using Forest Legacy funds.

The property consists of reclaimed mining lands, pine plantations, and mixed hardwood forests. Old narrow gauge railroad beds now provide a system of roads on much of the property. Much of the area was once designated a Public Hunting area by TWRA

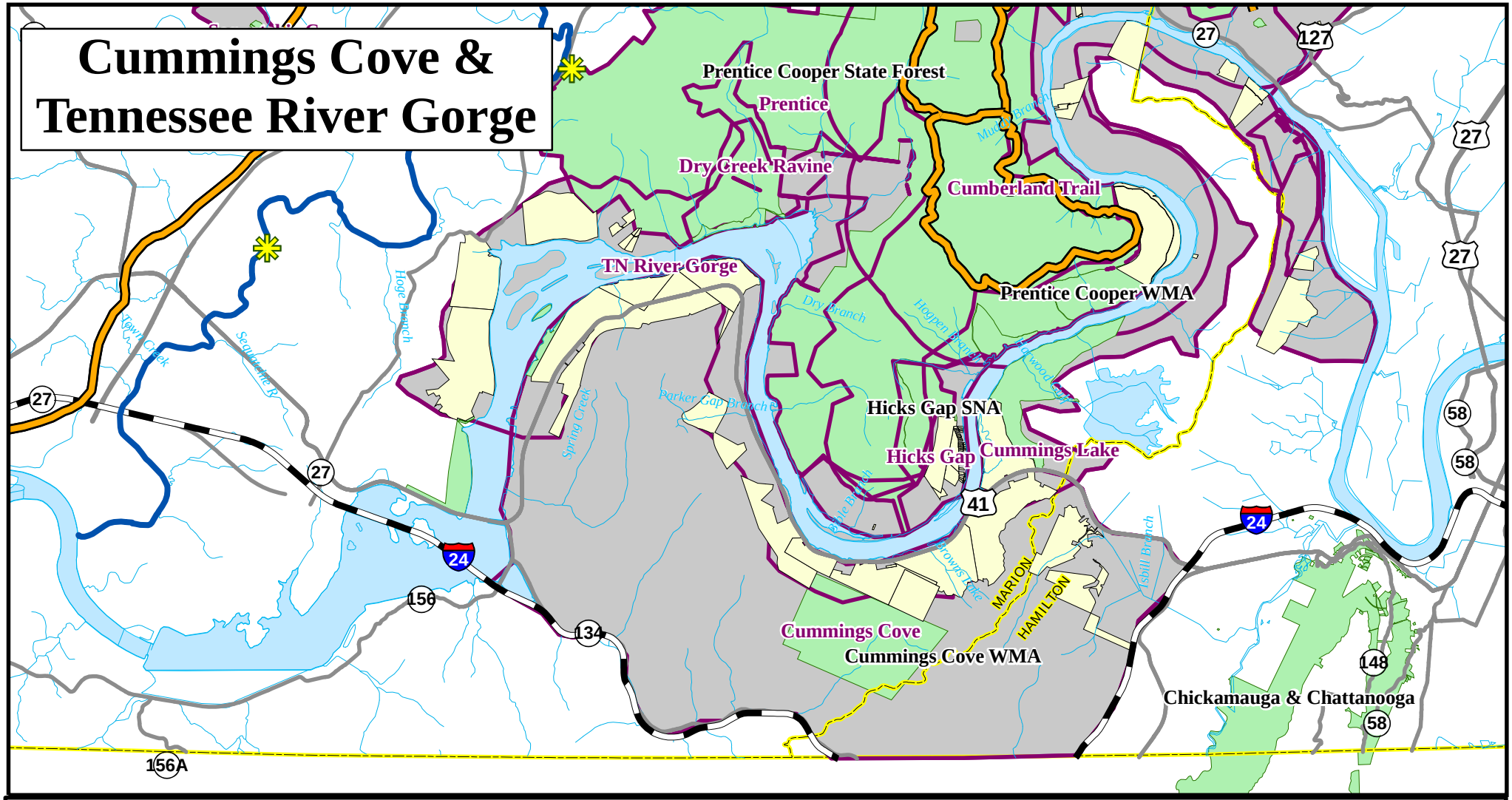
Significance – This area provides significant habitat for a variety of game species including deer, turkey, grouse, squirrels, and other small game species. It is also an important nesting and foraging habitat for many raptors, including the bald eagle which likely nest just north of the area. The diversity of areas makes it an important feeding areas for several special of bats including a population of eastern pipistrelles that roosts in Whiteside Cave just off the southern boundary of the area.

The springs creeks, and ponds developed as a result of mine site reclamation are important rearing areas for many species of amphibians, reptiles and water birds.

Strategy - This area has historically been an important recreational area for wildlife watchers, hunters and other outdoor users due to its proximity to Chattanooga. With several small public landholdings already existing in this area, this acquisition will tend to tie many of the properties together into a more cohesive unit, making protection and management of this entire area more feasible.

Land Protection Needs – 1,500 acres at an estimated cost of 1,300,000.

Potential Partners – TNC, TRGT, TWRA, and NWTF.


Cummings Cove &
Tennessee River Gorge
Prentice Cooper State Forest
Prentice
Dry Creek Ravine
Cumberland Trail
TN River Gorge
Prentice Cooper WMA
Hicks Gap SNA
Hicks Gap
Cummings Lake
Cummings Cove
Cummings Cove WMA
Chickamauga & Chattanooga
MARION
HAMILTON
Hoge Branch
Spring Creek
Parker Gap Branch
Dry Branch
Hogpen Gap Branch
Brown's Lake
Isbill Branch
Sequatchie R.
27
127
58
24
41
134
156
148
156A
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
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CUMMINGS LAKE

Location – (N35.0412, W85.4281) Cummings Lake is a shallow embayment located in Marion County near Tennessee River Mile 442, west of McNabb Road, near where Hwy. 41 crosses Raccoon Mountain. (See Hicks Gap SNA map)

Description – This shallow embayment of Nickajack Reservoir is approximately 134 acres. The flooding of the river bottom has created narrow peninsulas and islands which separate the embayment from the main body of the reservoir. The shallow water and low lying areas which are not maintained as fields are of marsh or willow vegetation type. Mixed bottomland hardwoods occur on some portions of the river bottom, while the upland forests on the site are of the Virginia pine-mixed oaks-tulip poplar type.

Significance – Site Importance High (B3) - Cummings Lake provides excellent habitat for water birds, including the bald eagle (*Haliaeetus leucocephalus*), which is federally threatened. While widespread throughout its range (G4), the bald eagle is rare and uncommon within the state (S3). This site also provides excellent habitat for osprey (*Pandion haliaetus*), great blue heron *(Ardea herodias*) and migratory waterfowl.

Strategy – Acquisition of properties within and adjacent to the site would provide watershed protection as well as preservation of rare species and their associated habitat.

Land Protection Needs – 134.3 acres at an estimated cost of $115,000.

Potential Partners – TDEC.

DRY CREEK RAVINE

Location: – (N35.0982, W85.4816) Dry Creek Ravine is located north of Nickajack Lake in Marion county, just west of Mullens Creek Embayment, and encompasses most of the ravine formed by Dry Creek. The northern portion of the site lies within Prentice Cooper State Forest. (See Prentice Cooper map).

Description – This site is approximately 978 acres and includes the Dry Creek watershed from its mouth up to an elevation of approximately 1600 feet. The lower portion of the ravine is comprised of the Virginia pine-mixed oaks-tulip poplar vegetation type. Mature examples of oak-hickory and hemlock-mixed mesophytic forest can be found in the middle portions of the ravine. The upper slopes of the ravine, up to the base of the bluffs, are chestnut oak-mixed oak-hickory forests. In the very upper reaches of the site are a series of abandoned mines on the west side of Dry Creek, which are used by gray bats (*Myotis grisescens*).

Significance – Site Importance High (B3) - Dry Creek Ravine provides diverse habitat for four rare species: gray bat, peregrine falcon (*Falco peregrinus*), large-flowered skullcap (*Scutellaria montana*), and three-parted violet (*Viola tripartita* var. *tripartita*). Gray bats, listed as federally and state endangered, are considered rare and local throughout their range (G3) and very rare and imperiled within the state (S2). They have been documented from the abandoned mine portals at the upper reaches of the site as well as the abandoned mines near the mouth of Dry Creek. The state endangered peregrine falcon was historically documented from this site, however additional surveys are needed to confirm whether populations are still present. The peregrine falcon is considered secure globally (G4) but extremely rare and critically imperiled in the state (S1N). The site also contains several populations of the large-flowered skullcap growing along the dry woods and escarpment to the south. Listed as federally and state threatened, large-flowered skullcap is considered very rare and imperiled globally (G2) and within the state (S2). Dry Creek Ravine also provides habitat for the three-parted violet, a state species of special concern. The best habitat for this species appears to be near the edges of Dry Creek.

Strategy – Acquisition of properties within and adjacent to the site would provide watershed protection as well as preservation of rare species and their associated habitat.

Land Protection Needs – 418.3 acres at an estimated cost of $450,000.

Potential Partners – TDEC, TWRA, USFWS, and Tennessee River Gorge Trust.

EDWARDS POINT SANDSTONE OUTCROPS

Location – (N35.1254, W85.3754) Edwards Point Sandstone Outcrops is located adjacent to the Town of Signal Mountain, north of Nickajack Lake, and encompasses the southwest-facing escarpment of Edwards Point. Most of the site lies within Prentice Cooper State Forest, but a portion extends off of State Forest land.

Description – This 51 acre site at the southeast end of Edwards Point contains the only good examples of primary successional communities on flat sandstone outcrops in the Tennessee River Gorge. The outcrops proper consist of islands of vegetation, with the tallest plants in the center and progressively more diminutive species ranging out to bare rock. This zonation is typical of flat rock successional patterns, with the Sandstone Successional communities being represented at several locations on the Cumberland Plateau escarpments. The forests surrounding the flat rock communities are primarily Virginia pine-mixed oak forests above the bluff line, and chestnut oak-mixed oak hickory below the bluffs.

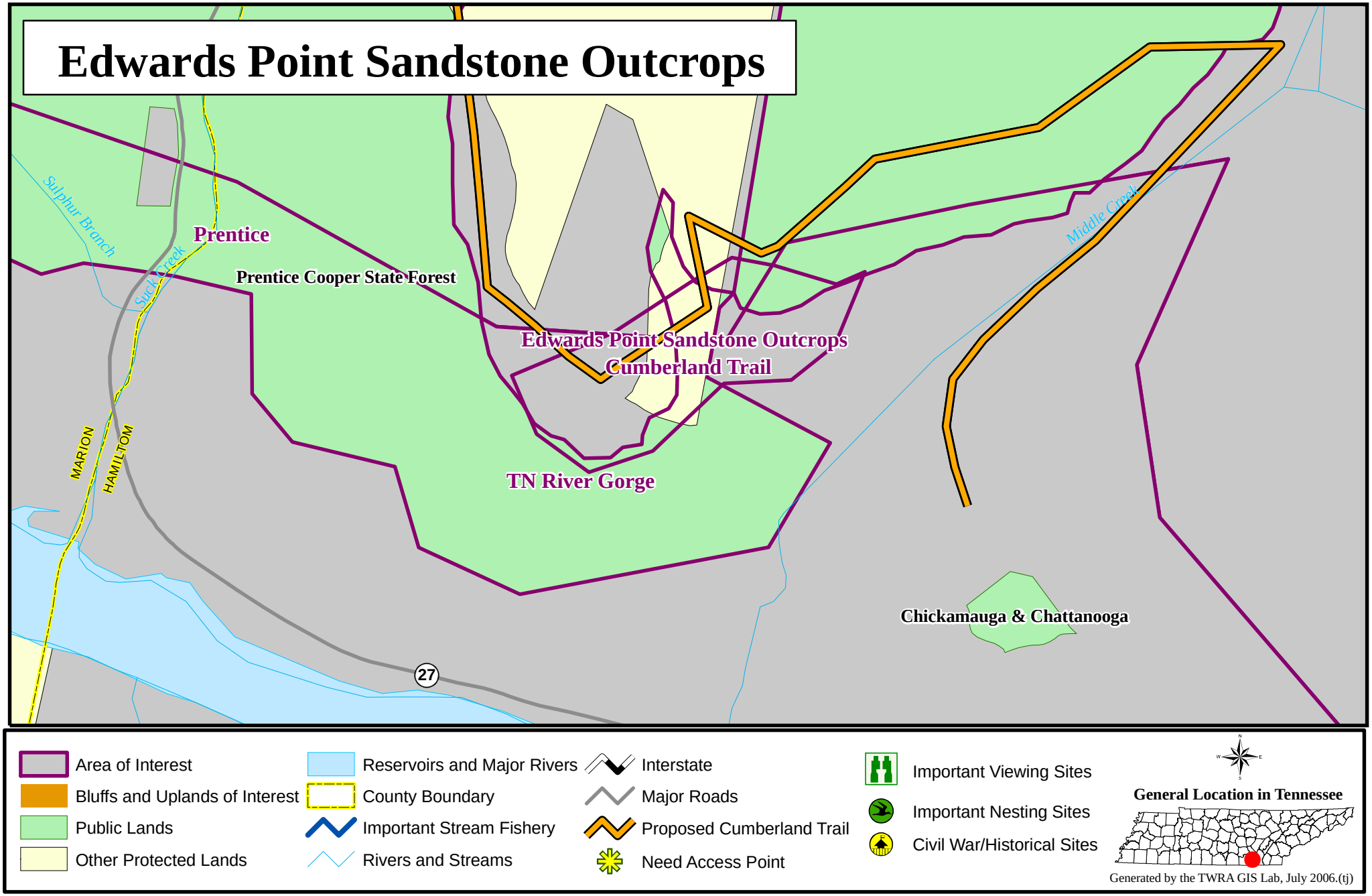
Significance – Site Importance Moderate (B4) - This site contains a rare plant restricted to flat sandstone outcrops, the round-leaved fame flower (*Talinum teretifolium*). While this state threatened plant is secure globally (G4), it is considered very rare and imperiled within the state (S2) and is one of only ten known populations in Tennessee.

Strategy – Acquisition of properties within and adjacent to the site would help preserve representative communities of the Cumberland Plateau system as well as provide watershed protection and preservation of rare species and their associated habitat.

Land Protection Needs - 31 acres at an estimated cost of $68,000.

Potential Partners – TDEC, TWRA, TDA, and Tennessee River Gorge Trust

Edwards Point Sandstone Outcrops



ENGLISH CAVE

Location – (N36.5425, W83.6131) English Cave is located in Claiborne County, 0.9 mile south of Hamilton School, on the south side of a hollow running northwest toward Powell River mile 67.0. (See Powell River Reserve map)

Description of Property - According to Barr (1961): "English Cave is the largest cave visited in Claiborne County. It is developed in gently inclined strata and exhibits strong joint control. The cave trends southeastward through the ridge that forms the interfluve between the cave hollow and Pine Hill Hollow. Its geologic horizon is Chepultepec (and Copper Ridge?) dolomite.

The main passage averages 40 feet high and 20 feet wide and is 3,500 feet long. Many formations are developed, including a large, balloon-shaped stalagmite 15 feet high and 8 feet in diameter, a flowstone 20 feet high and 10 feet wide, and a variety of smaller stalagmites. Cave coral incrusts the walls and floor in many places and two or three extensive breakdowns have formed, over which one must climb to reach the end of the cave. The floor is damp or muddy throughout. Near the end a wet-weather surface stream enters the cave, and a cobble-floored canyon 300 feet long has been developed at this point. It tapers down to a low bedding-plane crawl.

English Cave, formerly owned by the Massengill family, is sometimes spoken of as "Massengill Cave." In the early part of the 20th century it was developed commercially by a utilitarian socialist colony of Englishmen at Cumberland Gap, and it still bears the name "English Cave." The rotting remains of wooden stairways, walkways, and bridges may be seen in many places."

Significance – Site Importance Very High (B2) - English Cave is the only known location for two cave-obligate invertebrates, and provides habitat for numerous other rare species. It is reported as the only cave in the Ridge and Valley province containing three different species of cave beetles, implying a particularly rich and diverse fauna. Species reported from English Cave include: *Kleptochthonius affinis* (cave-obligate pseudoscorpion, S1S2), *Pseudanophthalmus rotundatus* (cave-obligate beetle, S1), *P. pallidus* (S1S2), *P. engelhardti* (S1; only known location), *Stygobromus finleyi* (cave-obligate amphipod, S1; only known location), and *Myotis sodalis* (Indiana bat, S1). Though the *P. engelhardti* and *P. rotundatus* records are considered historical, this probably reflects a lack of recent sampling for these taxa.

Strategy: – The primary concern at this site is that excessive visitation by uninformed individuals could damage the habitats upon which the rare invertebrates and Indiana bats depend. The entrance needs to be secured and access controlled. The property is currently for sale.

Land Protection Needs – 175.8 acres at an estimated cost of $265,000.

Potential Partners – TNC, TWRA, Lincoln Memorial University, and TDEC.

FALL CREEK FALLS STATE PARK AND SNA

Location – (N35.7040, W85.3443) Fall Creek Falls in located in Van Buren County, approximately 11 miles east of Spencer. (See Scotts Gulf map).

Description - Fall Creek Falls State Park is one of the most scenic and spectacular recreation areas in America. Its waterfalls, cascades, sparkling streams, gorges, timberland and an unmatched variety of recreation facilities and activities have made it one of the most popular parks in the Southeast. Fall Creek Falls is one of the highest waterfalls east of the Rocky Mountains, plunging 256 feet into a shaded pool at the base of its gorge. The park's other falls, (Piney, Cane Creek and Cane Creek Cascades), though smaller, are just as impressive.

Significance - The oak and hickory forest that covers most of the park gives way to tulip poplar and hemlock forest in the gorges. The plants and animals of the moist, protected gorges are not unlike the species found in southern Canada. Mountain laurel and rhododendron are abundant throughout the park, as are other plants and animals.

Strategy - The strategy for future acquisitions for Fall Creek Falls is to acquire in-holdings and properties surrounding the park for watershed protection and properties that contain representative forest cover types of the Cumberland Plateau, escarpment and gorges, that further the wildlife, aesthetics, interpretive and recreation missions of Fall Creek Falls State Park.

Land Protection Needs – 10,000 acres at an estimated cost of $7,000,000

Potential Partners - TCF, TNC, TDEC, and the Friends of Fall Creek Falls.

FRANKLIN STATE FOREST

Location – (N35.0805, W85.8754) Franklin Forest is located on the Cumberland Plateau approximately 7 miles south of Sewanee and one mile east of Sherwood in Franklin and Marion Counties. Major access is from Hwy 156. (See Carter Mountain map).

Description - Franklin State Forest - (6,941 acres) The area was purchased by the State from Gross Creek Coal Company in 1936. TDF assumed management of the area in 1940. About 99% of the land is forested and about 96% of the land is in mature hardwood sawtimber and pole timber Only about 3% of the Forest is in pine types. The area has a history of timber abuse by diameter-limit cuts, high-grading and uncontrolled wildfires.

Significance – Franklin Forest and the surrounding landscape is representative of the southern Cumberland Plateau with rolling hills on top of the escarpment dissected with deep gorges. It is underlain by Mississippian limestone and numerous limestone outcroppings. These features provide scenic overlooks into Sweeten, Cross Creek and Lost Coves. The limestone outcrops are the exclusive habitat for the paint snake forest coiled snail (*Anguispira picta*), an extremely rare species found only in about a square mile area near Sherwood immediately adjacent to the current State Forest boundary on the west side.

This area is under intense development pressure with developments underway adjacent to the south and north boundaries. Projections indicate urbanization will increase dramatically over the next 15 years. The scenic Plateau escarpment overlooks and proximity to Chattanooga and Atlanta make this area highly desirable for development.

State Forest Strategy - Development interests on the west, northwest and southwest sides of the forest would cause serious management problems for the forest. These properties, if developed, would require ingress/egress through the forest. Current roads and power lines already utilize much of the forest. Additional interests would further fragment the forested area. The strategy for acquisition is to first protect vulnerable areas that would affect the forest. The next priorities would be to acquire any in-holdings, or lands to gain or control access to the forest. Access control to reduce indiscriminate use of motorized/non-motorized vehicles and horses is needed to protect the forest resources.

Land Protection Needs – 7,424 acres at an estimated cost of $3,915,772

Potential Partners – USFWS, NWCF, Forest Legacy, TNC, Thunder Enterprises.

FROZEN HEAD SNA

Location – (N36.1516, W84.5169) Frozen Head SNA is located in Morgan County just north of the community of Petros. (See Catoosa WMA map)

Description - Love Mountain is owned by Heartwood Forestland Fund based in Chapel Hill North Carolina. It is located on the southwest boundary of Frozen Head State Park and SNA. The property consists of approximately 935 acres of hardwood forest. The Chimney Top Trail, a historic CCC hiking trail, is partially located on this property. Elevations run from 1,300 feet to 2,800 feet above sea level.

Significance - This tract is critical to preserving the Flat Fork viewshed approaching the park as well as views within the park and along State Highway 62. This tract provides prime habitat for rare and threatened species of neo-tropical migrants such as the cerulean and Canada warblers and is host to a rich and diverse botanical community.

Strategy - The strategy for future acquisitions to Frozen Head is to acquire properties surrounding the park for access or access control, watershed protection, view-shed protection and properties that contain representative forest cover types of the Cumberland Plateau, escarpment and gorges, that further the wildlife, aesthetics, interpretive, and recreation missions of the State Park System.

Land Protection Needs – 941 acres at an estimated cost of 400,000

Potential Partners - TCF, TDEC, Tennessee Citizens for Wilderness Planning, and Friends of Frozen Head.

GOOSE POND

Location – (N35.2839, W85.8688) Goose Pond is located in Grundy County on the Eastern Highland Rim of the Cumberland Plateau about 0.5 miles south-southwest of the Mt. View community on U.S. Hwy 41.

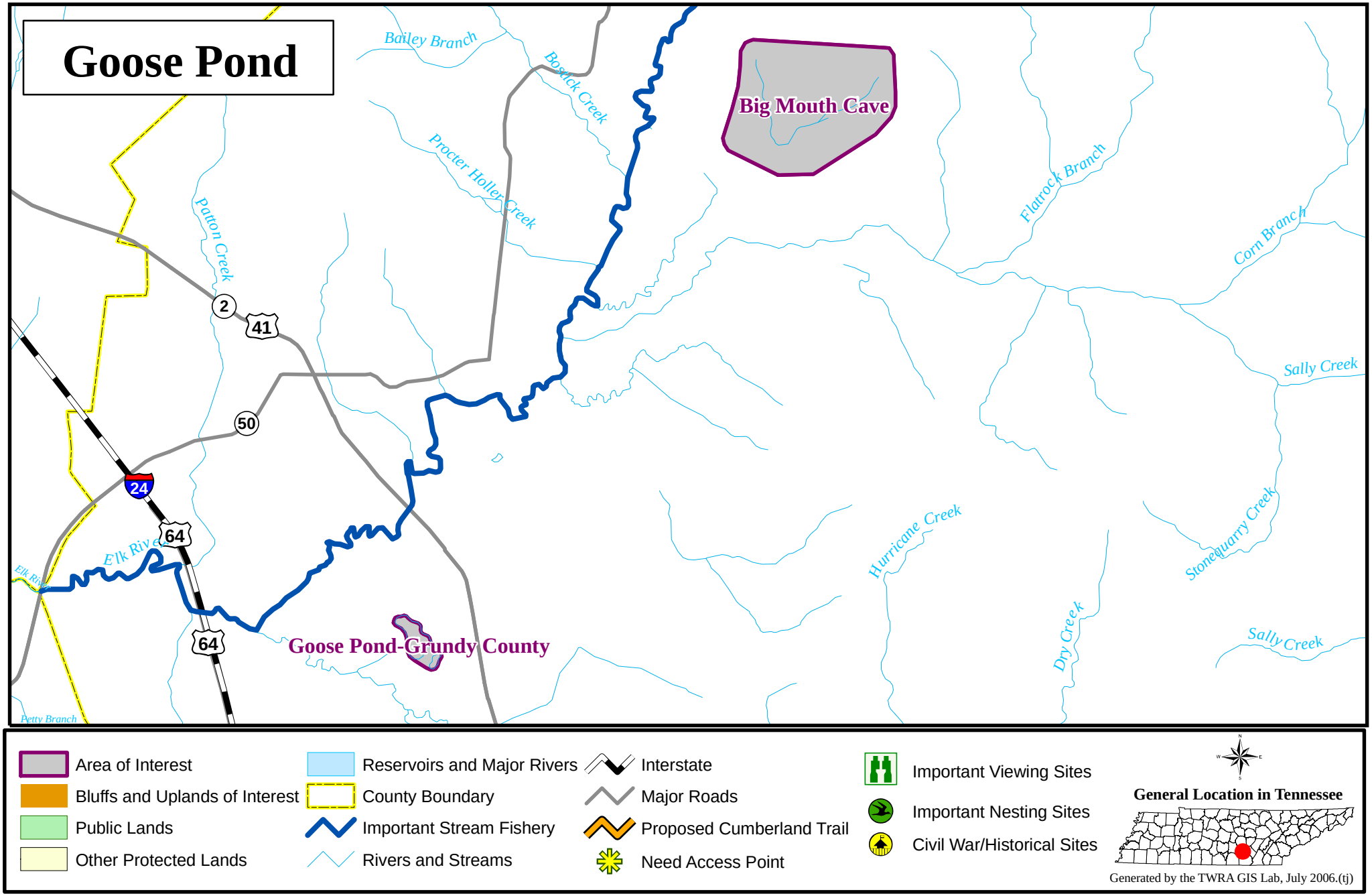
Description - Goose Pond is a natural upland pond and fresh water marsh underlain by Monteagle Limestone.

Significance - Site Importance Moderate (B4) - Goose Pond is a natural upland pond and fresh water marsh on the Eastern Highland Rim of the Cumberland Plateau. It is well known for its diversity in wildlife and plant life. Rare birds known to nest at Goose Pond include the deemed in need of management (D) - least bittern, state critically imperiled (S1) - American bittern, purple gallinule, and the king rail (D). Goose Pond is also significant in its floristic diversity and community representation. Two rare plants are known from the site are the state rare creeping mannagrass (*Glyceria acutiflora*) and maidencane (*Panicum hemitomon*). Both rare grasses are known to occur within rare globally imperiled communities such as the Interior Highland Maidencane Pond.

Strategy - The strategy for acquisition at Goose Pond is to acquire properties within and adjacent to the site design (site boundary) for access or access control, watershed protection, and preservation of rare species and representative communities. Preservation of these rare species and wildlife will provide educational opportunities for area colleges, universities, and the general public, and work toward preserving Tennessee's natural heritage.

Land Protection Needs - 34.6 acres at an estimated cost of $72,000.

Potential Partners – TWRA, TDEC, and TNC


Goose Pond
Bailey Branch
Bostick Creek
Procter Holler Creek
Big Mouth Cave
Flatrock Branch
Corn Branch
Patton Creek
2
41
50
24
64
64
Elk River
Elk River
Sally Creek
Hurricane Creek
Stonequarry Creek
Dry Creek
Sally Creek
Goose Pond-Grundy County
Petty Branch
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

GRASSY CREEK CAVE

Location – (N35.5278, W84.9122) Grassy Creek Cave is located in Rhea County approximately 0.4 mile south of Washington, 150 yards east of Hwy. 30, near an abandoned limestone quarry, at an elevation of 700 feet. (See Laurel Snow Pocket Wilderness map)

Description – According to Barr (1961): "Before emptying into Town Creek, Grassy Creek disappears underground and reappears no less than four times. The last time it flows through a large cave, a tunnel which extends N. 50^{o} E. downstream for 900 feet. The upper entrance is 20 feet wide and 7 feet high. Most of the cave consists of a damp, upper-level passage of the bedding-plane or round tube variety. This passage is entirely separate from the stream except at both ends of the cave. A few small speleothems were noted. Exploration is hampered by a large colony of bats (*Myotis grisescens*)."

Significance - Site Importance Very High (B2) - Grassy Creek Cave is home to at least three rare species, including *Pseudanophthalmus nortoni* (cave-obligate beetle, S1), *Nesticus dilutus* (Grassy Creek cave spider, S1S2), and *Myotis grisescens* (gray bat, S2, state/federal endangered). This is the only known location for both the beetle and the spider. Gray bats use the cave as a summer roost, with 13,900 bats reported in 2002. As many as 40,000 gray bats have been reported previously.

Strategy – The upper (accessible) stream entrance to the cave needs to be secured, and acreage lying above the cave needs to be managed in a fashion conducive to maintaining the biota of the cave. The area immediate to the entrance should be reforested, as appropriate.

Land Protection Needs - 5.6 acres at an estimated cost of $20,000.

Potential Partners – TWRA, TNC, USFWS, and TDEC.

GRINDSTONE MOUNTAIN GEOLOGIC FEATURE

Location – (N35.0745, W85.0181) Grindstone Mountain Geologic Feature is located in Bradley and Hamilton Counties. The site is 2.4 miles east of Ooltewah, south of Hwy 11.

Description – The site is an outlier to the Cumberland Plateau, 18 miles east of the eastern edge of the plateau. This steep sided mountain has a top, which is comparatively gentle. The upper ½ to $^{2}/_{3}$ of the slope exhibits the Pennsylvanian sandstone bedrocks of the plateau. The slopes are dominated by oak forests.

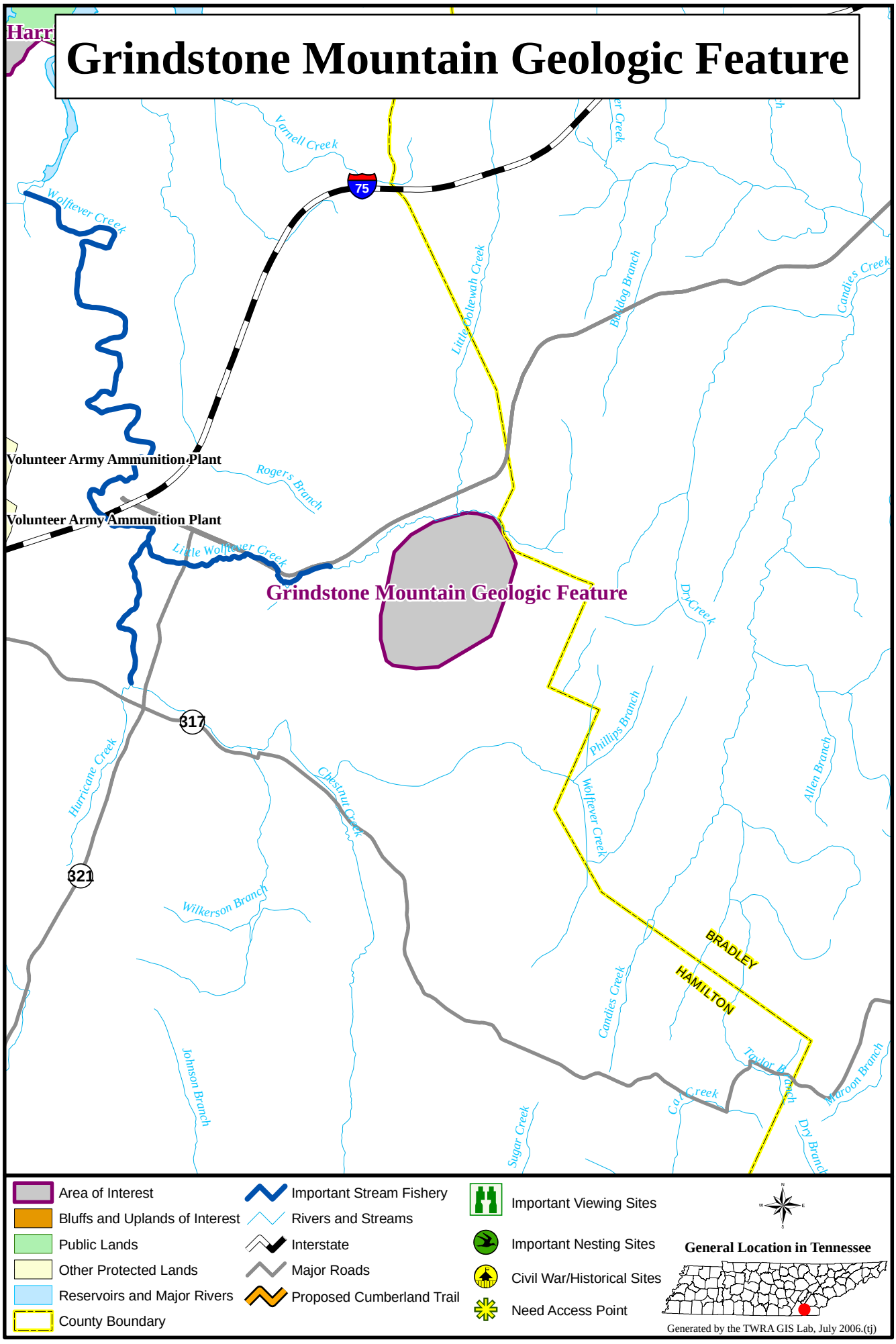
Significance – Site Importance General Interest/Open Space (B5) – No rare elements are identified from this site.

Strategy - The strategy for acquisition at Grindstone Mountain Geologic Feature is to acquire properties within and adjacent to the site design (site boundary) for access or access control, watershed protection, and preservation of rare species and representative communities. Preservation of these rare species will provide educational opportunities for area colleges, universities, and the general public, and work toward preserving Tennessee's natural heritage.

Land Protection Needs – 813 needed acres $1,500,000.

Potential Partners – TDEC.

Grindstone Mountain Geologic Feature



GRUNDY FOREST SNA AND FIERY GIZZARD COVE

Location – (N35.1998, W85.7223) This area is located in Marion and Grundy Counties just south of the Tracy City.

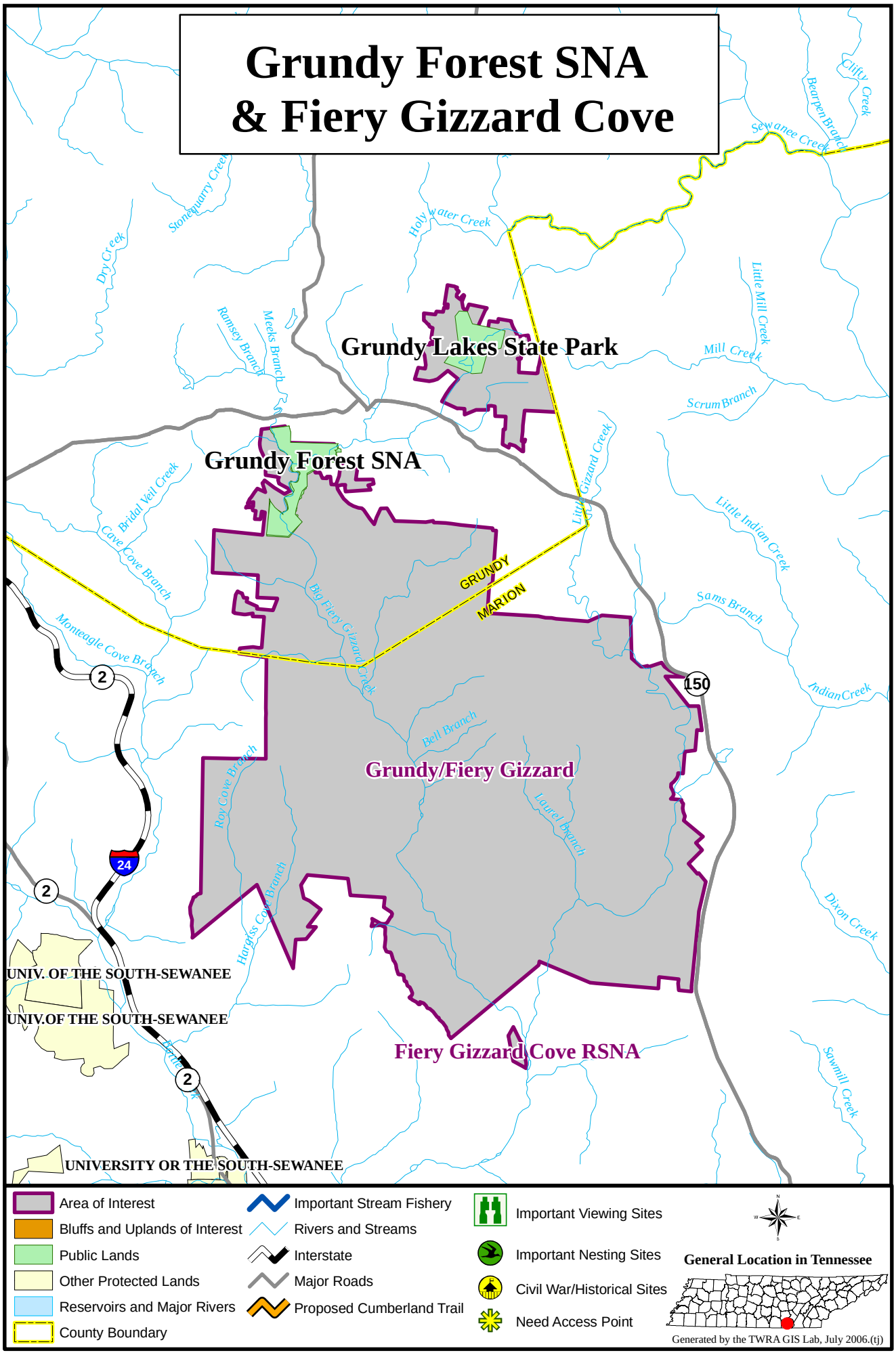
Description: The 234 acre Grundy Forest SNA was donated to the State in 1935 by a group of local citizens in Tracy City. The group asked that the tract become a state forest suitable for accommodating the Civilian Conservation Corps Camp S-67. A picnic shelter was built and the beginning of perhaps the most beautiful and diverse trail in Tennessee, the Fiery Gizzard, which follows the Gizzard Cove.

Significance - The Fiery Gizzard trail begins at the Grundy Forest Natural Area and ends at the Foster Falls TVA property. It is unique in that it is located almost totally on private lands. For years now those landowners have been gracious in allowing the public to use their land. Along this trail one will experience hemlock forests, rock shelters, waterfalls, rock columns, old moonshine stills, breathtaking overlooks and a diverse array of flora and fauna.

Strategy - The strategy for future acquisitions to SCSRA is to acquire in-holdings, properties surrounding the park for access or access control, watershed protection, and properties that contain representative forest cover types of the Cumberland Plateau, escarpment and gorges, that further the wildlife, aesthetics, interpretive, and recreation missions of the State Park System.

Land Protection Needs – 6,000 acres at an estimated cost of $2,665,700 (In Negotiations. Very Sensitive)

Potential Partners - TDEC, The Friends of South Cumberland State Recreation Area, TNC, and Land and Water Conservation Fund.


Grundy Forest SNA
& Fiery Gizzard Cove
Grundy Lakes State Park
Grundy Forest SNA
Grundy/Fiery Gizzard
Fiery Gizzard Cove RSNA
GRUNDY
MARION
UNIV. OF THE SOUTH-SEWANEE
UNIV.OF THE SOUTH-SEWANEE
UNIVERSITY OR THE SOUTH-SEWANEE
Sewanee Creek
Holly Water Creek
Stonequarry Creek
Dry Creek
Ramsey Branch
Meeks Branch
Mill Creek
Little Mill Creek
Scrum Branch
Little Fiery Gizzard Creek
Bridal Veil Creek
Cave Cove Branch
Big Fiery Gizzard Creek
Little Indian Creek
Sams Branch
Monteagle Cove Branch
Bell Branch
Roy Cove Branch
Laurel Branch
Hargiss Cove Branch
Indian Creek
Dixon Creek
Sawmill Creek
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GRUNDY LAKES STATE PARK

Location - Grundy County (See Grundy Forest SNA ap)

Description of Property - Grundy Lakes was donated to the State of Tennessee in the 1930's for a Civilian Conservation Corps recreation project. Famous for its coke ovens, which was utilized in the later 1800's by convict labor to "purify" the coal that came from local mines. A turbulent era in Tracy City history, as revolts from the local miners that had no jobs ensued. These rebels stormed the Lone Rock stockade, which is were the prisoners were kept, burned it and marched all the prisoners to a train where the engineer was ordered to "take them back to Nashville". With the rebellion, came a state militia of more than 5000 men that quickly ended the situation in 1896. Today the coke ovens are still there and surprisingly well intact. The Grundy Lakes is the most popular day use area that South Cumberland Recreation Area has for the local that may be interested in canoeing, fishing, or an easy stroll around the lakes to view the richness and beauty the area has to offer.

Significance - This area is now recognized and on the National Historic Register.

Strategy/Criteria: The strategy for future acquisitions to SCSRA are to acquire in-holdings, properties surrounding the park for access or access control, watershed protection, and properties that contain representative forest cover types of the Cumberland Plateau, escarpment and gorges, that further the wildlife, aesthetics, interpretive, and recreation missions of the State Park System.

Land Protection Needs – 451 acres at an approximate cost of $500,000

Potential Partners - Friends of South Cumberland State Recreation Area, TNC, and the Land And Water Conservation Fund.

HARPER ROAD / SYCAMORE BRANCH

Location – (N35.6175, W85.5803) Harper Road/Sycamore Branch is located in Van Buren County adjacent to Harper Road at the Sycamore Branch crossing, approximately 1.5 miles west of the junction of Rocky River Road and Harper Road, north of Curtistown, near the Warren County line. (See Hubbard's Cave SNA map)

Description – This forested three acre site encompasses a boggy streamhead and is dominated by herbaceous wetland species. Associated plant species include: New York fern (*Thelypteris noveboracensis*), cinnamon fern (*Osmunda cinnamomea*), and sphagnum moss (*Sphagnum* spp.).

Significance – Site Importance High (B3) - A significant population of white fringeless orchid (*Platanthera integrilabia*) is located at this site. Listed as state endangered and a candidate for federal listing, white fringeless orchid is considered very rare and local throughout its range (G2G3) and very rare and uncommon within the state (S2S3).

Strategy – Acquisition of properties within and adjacent to the site would provide watershed protection as well as preservation of rare species and their associated habitat.

Land Protection Needs – 2.8 acres at an estimated cost of $14,000.

Potential Partners – TDEC and USFWS.

HARRISON BAY STATE PARK

Location – (N35.1560, W85.1007) Harrison Bay State Park is located in Hamilton County on the shores of Chickamauga Lake near Chattanooga.

Significance - Harrison Bay State Park is a 1,200-acre park located along 40 miles of Chickamauga Lake shoreline that was originally developed as a Tennessee Valley Authority recreation demonstration area in the 1930's by the Civilian Conservation Corp.

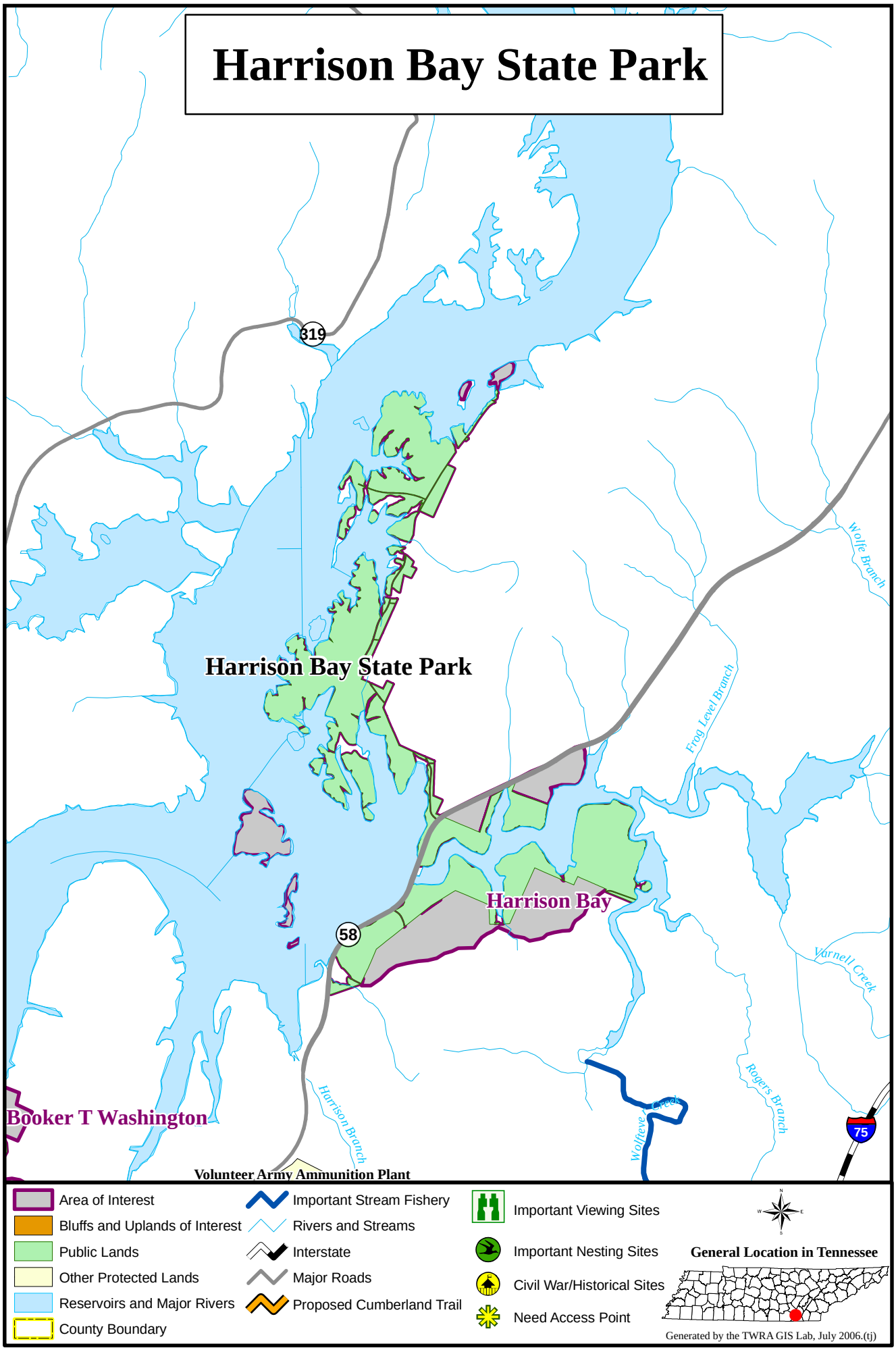
Being the oldest state park in Tennessee, Harrison Bay's name is derived from a large bay of the Tennessee River that covers the old town of Harrison. The original town site was also the last Cherokee campground.

The park provides a fully operational marina with café, four camping areas with a total of 162 sites, a group camp, picnic areas with pavilions, fishing, swimming pool, hiking, bike trails and an 18 hole golf course.

Strategy - The strategy for future acquisitions for Harrison Bay State Park is to acquire properties surrounding the park for watershed protection and properties that have significant cultural and natural features that further the wildlife, aesthetics, interpretive and recreation missions of Harrison Bay State Park.

Land Protection Needs – 344 acres at an estimated cost of $1,200,000.

Potential Partners – TCF and TNC.


Harrison Bay State Park
319
Harrison Bay State Park
Harrison Bay
58
Booker T Washington
Volunteer Army Ammunition Plant
Wolfe Branch
Frog Level Branch
Varnell Creek
Rogers Branch
Harrison Branch
Wolfteve Creek
75
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
Need Access Point
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

HAWKINS COVE EAST

Location - (N35.1764, W85.9461) Hawkins Cove East is located on the Cumberland Plateau in Franklin County halfway between Sewanee and Cowan along the south side of Highway Alt. 41. (See Carter Mountain map)

Description - Hawkins Cove East is located adjacent to the 235-acre Hawkins Cove SNA, which was originally acquired by TNC of Tennessee and then sold to the state to protect a population of Cumberland rosinweed (*Silphium brachiatum*). The forest in this area consists mostly of oaks and hickories occurring on a north facing colluvial slope and is second growth. There are a few small limestone outcroppings with cedar barren type vegetation found scattered on the property.

Significance - This area is important because it is adjacent to the SNA and supports more of the same population of Cumberland rosinweed (*Silphium brachiatum*) that is in the natural area. Cumberland Rosinweed is a type of sunflower found only in Tennessee on the Cumberland Plateau. The barrens and openings located here provide the best habitat for the Cumberland Rosinweed. The rosinweed is mostly found on the upper slope terraces, particularly along the ridges.

Strategy - The site conservation for this site includes acquisition of 75 acres to increase further protection of Cumberland rosinweed by protecting more of the population found at this location.

Land Protection Needs - 75.2 acres at an estimated cost of $73,000.

Potential Partners - TDEC.

HICKS GAP SNA

Location – (N35.0478, W85.4433) Hicks Gap is located on the Cumberland Plateau in Marion County between Chattanooga and Powell's Crossroads on Highway 27 (Suck Creek Road) about seven miles northwest of Chattanooga in the Tennessee River Gorge**.** It is a part of the 26,000-acre Prentice Cooper State Forest and is adjacent to Tennessee River Gorge Trust property known as Kelley's Ferry Slopes..

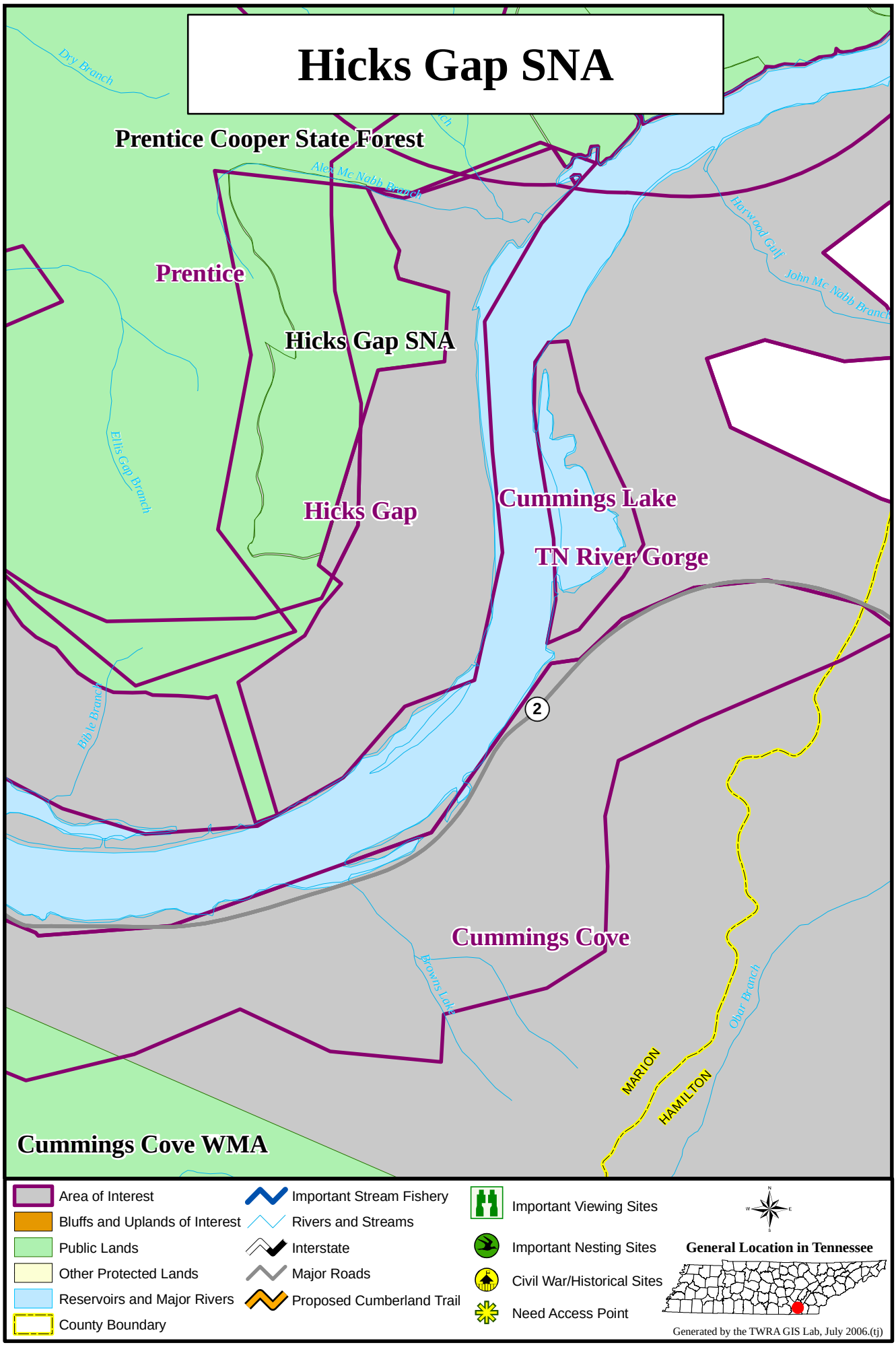
Description - Hick's Gap is a 350-acre natural area that occurs along the slopes of the Cumberland Plateau Escarpment in the Tennessee River Gorge. The upper slopes of Hicks Gap consist of a xeric (dry) to subxeric forest dominated by Virginia and shortleaf pines, with oaks and other hardwoods interspersed. The lower slope contains a mesic oak-hickory hardwood forest where white oak is prevalent. A dry somewhat open condition is optimum habitat for large-flowered skullcap. This area supports the largest known population of the federally threatened large-flowered skullcap (*Scutellaria montana*).

Significance - While Hicks Gap is a small site, it is nested within a large conservation area deep within the biologically rich Tennessee River Gorge. This area was designated because it, combined with Kelly's Ferry Slopes, supports the largest known population of the federally threatened large-flowered skullcap (*Scutellaria montana*). Because of this protection the large flowered skullcap has recently been downlisted under the Federal Endangered Species Act by the USFWS from endangered to threatened. The gorge is also home to many archeological sites dating back as much as 10,000 years.

Strategy - The site conservation plan for Hicks Gaps identifies existing private land for acquisition between The Tennessee River and the State Forest. The plan increases the acreage for the protection for the large flower skullcap to 1,580 acres.

Land Protection Needs – 1,237 acres at an estimated cost of $1,130,000.

Potential Partners - The Tennessee River Gorge Trust, TDA, and TDEC.


Hicks Gap SNA
Prentice Cooper State Forest
Prentice
Hicks Gap SNA
Hicks Gap
Cummings Lake
TN River Gorge
Cummings Cove
Cummings Cove WMA
Dry Branch
Alex Mc Nabb Branch
Harwood Gulf
John Mc Nabb Branch
Ellis Gap Branch
Bible Branch
Browns Lake
Obar Branch
MARION
HAMILTON
2
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
Need Access Point
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

HUBBARD'S CAVE SNA

Location – (N35.5481, W85.6744) Hubbard's Cave is located on the Cumberland Plateau in Warren County. It is approximately 10 miles southeast of McMinnville.

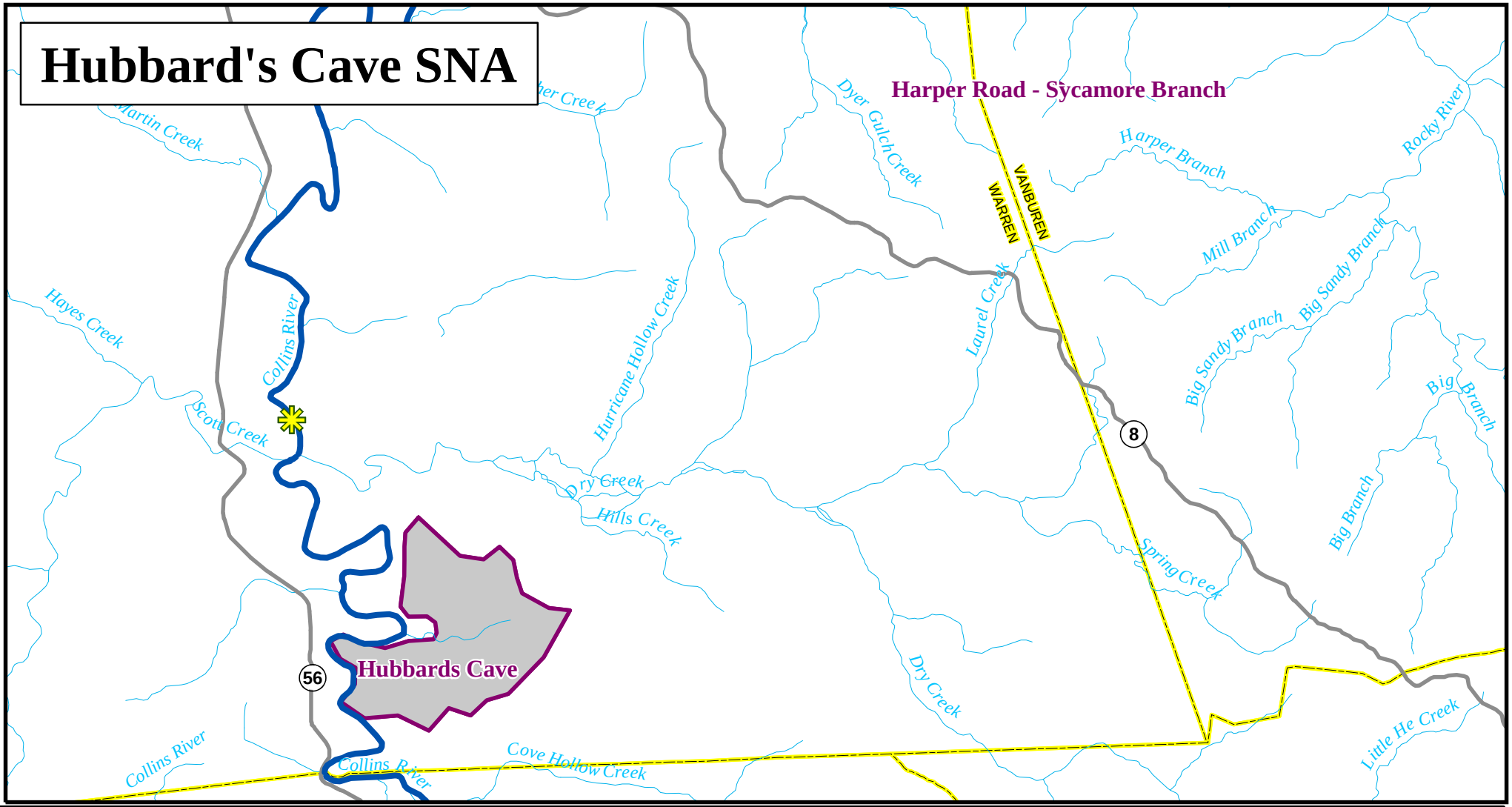
Description - Hubbard's Cave is a 50-acre natural area located in Warren County and is owned by the Tennessee Chapter of TNC. The cave consists of three entrances (branches) at the base of a large sinkhole. In addition to its biological importance, Hubbard's Cave has played an extensive role in human history. During the Civil War the cave was heavily mined for saltpeter to produce gunpowder. The west passage in particular is littered with evidence of this past human use. Researchers are still working to record all of the signatures found on the walls of this passage. Unfortunately, many of the historic signatures have been covered by graffiti. Artifacts from the saltpeter mining works have been found scattered throughout this passage, including a remarkable ladder that was burned and nearly destroyed by vandals in 1997.

Significance - Hubbard's cave is ecologically significant because it serves as a hibernaculum for two federally endangered bat species, the gray bat (*Myotis grisescens*) and the Indiana bat (*Myotis sodalis*). The cave is known to be the largest gray bat hibernaculum in Tennessee with over 100,000 bats observed here. Many other bat species use this cave as well. Hibernating bats are extremely sensitive to disturbance during hibernation period. Since they have stored up just enough energy to survive through the winter, rousing them forces the use of these precious stores. In many instances the bats will be unable to survive the winter if disturbed. Consequently, the cave entrances have been gated to prevent disturbance of the bats during their hibernation period. A mesic oak-hickory forest surrounds the cave.

Strategy - The site conservation plan for Hubbard's Cave proposes to increase the size to 1,252 acres by acquiring the surrounding property that provides good feeding habitat outside the cave with particular focus on nearby streams and rivers.

Land Protection Needs - 1,200 acres at an approximate cost of $750,000.

Potential Partners - TNC , USFWS, and TDEC.


Hubbard's Cave SNA
Harper Road - Sycamore Branch
Martin Creek
Dyer Gulch Creek
Harper Branch
Rocky River
VANBUREN
WARREN
Mill Branch
Big Sandy Branch
Big Sandy Branch
Hayes Creek
Collins River
Hurricane Hollow Creek
Laurel Creek
Big Branch
Scott Creek
8
Dry Creek
Hills Creek
Big Branch
Spring Creek
Hubbards Cave
56
Dry Creek
Collins River
Cove Hollow Creek
Collins River
Little He Creek
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

INDIAN MOUNTAIN STATE PARK

Location – (N36.5865, W84.1474) Indian Mountain State park is located in Campbell County in the City of Jellico. (See Upper Cumberland map)

Significance - Indian Mountain State Park is a multi-use, approximately 200 acre park in Campbell County near Tennessee's northern boundary. It serves as a living demonstration of how good environmental practices can reclaim wasteland and convert it to beneficial use. The park is on the site of a reclaimed coal strip mine. Visitors to the park are likely to see geese, ducks, beaver, blue herons, and deer.

The park has a 47 site modern campground and serves both tent and RV campers. The park also has three hiking trails, picnic pavilions and a swimming pool.

Strategy - The strategy for future acquisitions for Indian Mountain State Park is to acquire in-holdings and properties surrounding the park for watershed protection and properties that contain representative forest cover types of the Cumberland Plateau, escarpment and gorges, that further the wildlife, aesthetics, interpretive and recreation missions of Indian Mountain State Park.

Land Protection Needs – 264 acres at an estimated cost of $530,000.

Potential Partners - TCF, TNC, and TDEC.

ISSAC SPRINGS POND

Location - (N35.5218, W85.5908) Issac Springs Pond is located in Grundy County about 1.1 miles southeast of the junction of Grundy, Sequatchie, and Warren Counties along an old logging road paralleling the Grundy-Sequatchie Co. line. (See Savage Gulf map)

Description - Site is about 19 acres of swampy forest and an open water pond near the headwaters of a small unnamed creek entering Dry Creek Gulch. A dense stand of alder surrounds the pond, making it difficult to reach. The area was logged and grubbed in the spring of 2000 and replanted in the fall 2000.

Significance - Site Importance High (B3) - The forest at the site is comprised of red maple, black gum, and sourwood. The site is surrounded by a clearcut. A population of the state endangered white fringeless orchid is known from Issac Springs Pond with as many as 200-300 flowering individuals. The white fringeless orchid is a candidate for listing with the USFWS meaning sufficient information exists to list at the federal level. The site needs reevaluation to determine if the white fringeless orchid still exist and to determine how logging has affected the site.

Strategy - The strategy for acquisition at Issac Springs Pond is to acquire properties within and adjacent to the site design (site boundary) for access or access control, watershed protection, and preservation of rare species and representative communities. Preservation of these rare species and wildlife will provide educational opportunities for area colleges, universities, and the general public, and work toward preserving Tennessee's natural heritage.

Land Protection Needs – 20 acres at an approximate cost of $19,000.

Potential Partners - TWRA, TDEC, USFWS, Forest Legacy, and TNC.

LAUREL SNOW SNA

Location – (N35.5383, W85.0320) Laurel Snow SNA is located on the Cumberland Plateau in Rhea County north of Dayton. It is accessed via Highway 27/29.

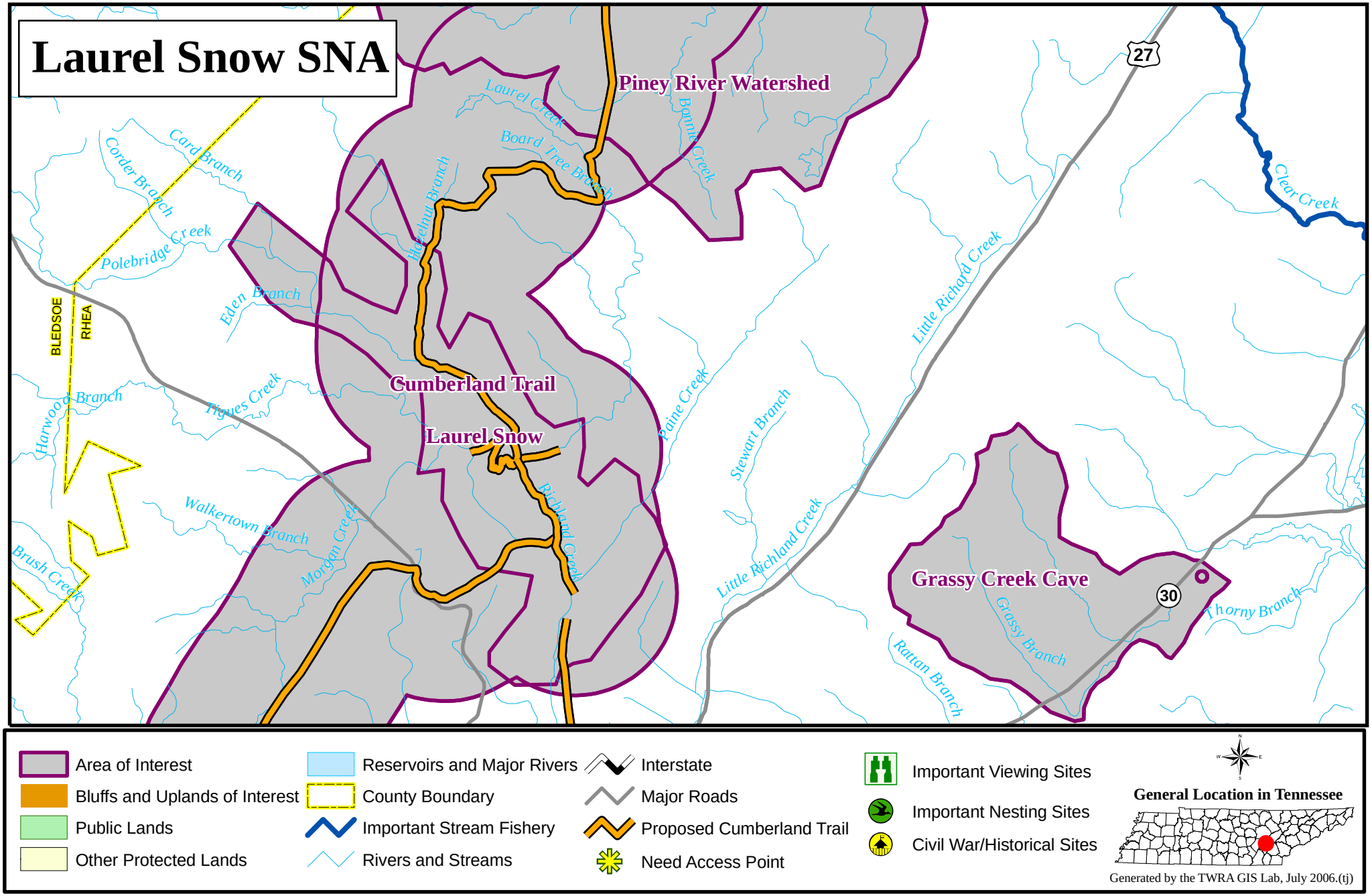
Description - Laurel Snow is a 710-acre natural area owned and managed by Bowater Incorporated. The natural area contains a section of gorge deeply cut into Walden Ridge of the Cumberland Plateau by Morgan, Henderson, Laurel, and Richland Creeks. The site is named after two scenic waterfalls, Laurel Falls (80 feet) and Snow Falls (35 feet).

Significance - Laurel Snow Pocket Wilderness Area features scenic creeks, overlooks, steep gorges, geologic features, a small stand of virgin timber, and a wide variety of plants and animals. Splendid views of gorges and Ridge and Valley landscapes can be seen from Snake Head and Buzzard Points.

Strategy - The site conservation plan proposes to acquire Laurel Snow from Bowater.

Land Protection Needs - 710 acres at an estimated cost of $645,000.

Potential Partners – TDEC and Bowater Incorporated.


Laurel Snow SNA
Piney River Watershed
Cumberland Trail
Laurel Snow
Grassy Creek Cave
Laurel Creek
Board Tree Branch
Bonnie Creek
Hickory Nut Branch
Card Branch
Corder Branch
Polebridge Creek
Eden Branch
BLEDSOE
RHEA
Harwood Branch
Tigues Creek
Walkertown Branch
Morgan Creek
Brush Creek
Richland Creek
Paine Creek
Stewart Branch
Little Richland Creek
Little Richard Creek
Clear Creek
Grassy Branch
Rattan Branch
Thorny Branch
27
30
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

LEE FARM

Location – (N35.4198, W85.6876) Lee Farm is located in Grundy County on a small tributary of Big Creek just south of Savage Gulf and southeast of Altamont. (See Savage Gulf map)

Description – This 55 acre site encompasses a wooded riparian leave strip (stream buffer zone) surrounded by a clear-cut. The forested area of the stream provides habitat for the white fringeless orchid (*Platanthera integrilabia*).

Significance – Site Importance High (B3) - A significant population of white fringeless orchid (*Platanthera integrilabia*) is located at this site. Plants are scattered over ¼ mile up the draw. Listed as state endangered and a candidate for federal listing, white fringeless orchid is considered very rare and local throughout its range (G2G3) and very rare and uncommon within the state (S2S3).

Strategy – Acquisition of properties within and adjacent to the site would provide watershed protection as well as preservation of rare species and their associated habitat.

Land Protection Needs - 56 acres at an estimated cost of $47,000.

Potential Partners – TDEC and TDA.

LEES STATION ROAD BARRENS

Location - (N35.5498, W85.2545) This 3.5 acre site is located in Bledsoe County about 0.5 miles south of the Lees Station Community and 0.7 miles north of Pemberton Branch. It lies between Hwy 127 and Nashville, Chattanooga and St. Louis Railroad. (See Scotts Gulf map)

Description - The property is estimated at 3.5 acres of flat to undulating limestone barrens dominated by little bluestem which appears to be mowed annually.

Significance - Site Importance Moderate (B4) - The site is a good example of a limestone barrens at the base of the eastern escarpment of the Cumberland Plateau with moderate (B4) biodiversity significance. The barrens are dominated by little blue stem but includes other species such as stiff goldenrod and big blue stem. Rare plants found on the site are the state endangered, earleaved false foxglove (*Agalinus auriculata*) and state rare naked-stem sunflower (*Helianthus occidentalis*). Both species are considered very rare and imperiled within the state of Tennessee.

Strategy -The strategy for acquisition at Lees Station Road Barrens is to acquire properties within and adjacent to the site design (site boundary) for access or access control, watershed protection, and preservation of rare species and representative communities. Preservation of these rare species and wildlife will provide educational opportunities for area colleges, universities, and the general public, and work toward preserving Tennessee's natural heritage.

Land Protection Needs – 4 acres at an estimated cost of $8,000.

Potential Partners - TDOT, TDEC, TNC, and Bledsoe County Government

LONE MOUNTAIN STATE FOREST

Location: – (N36.0511, W84.5697) Lone Mountain is located in Morgan County along the Emory River near the community of Mossy Grove and Catoosa WMA.

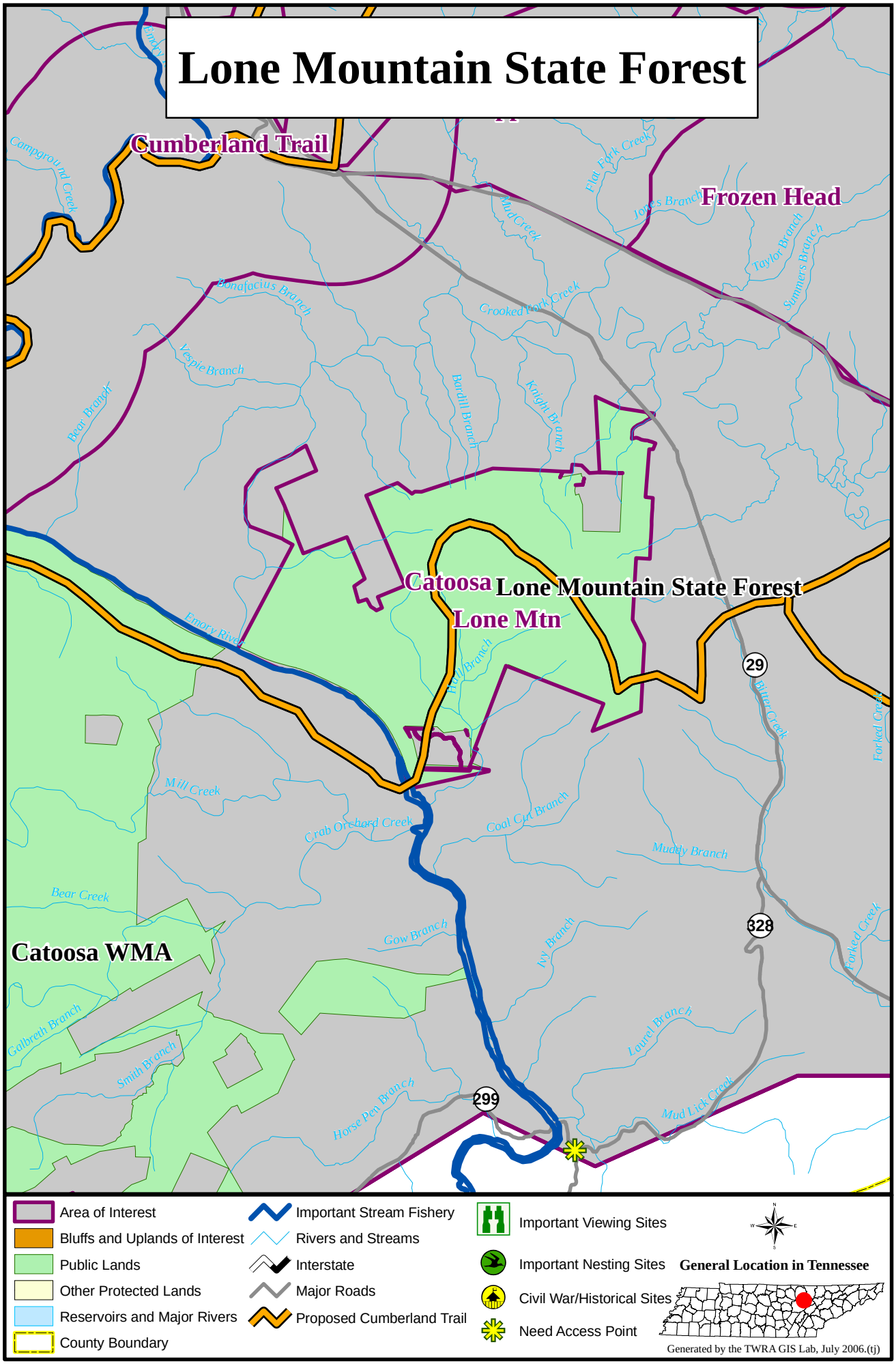
Description - Lone Mountain State Forest - (3,597 acres)
Lands for the Forest were acquired through a tax delinquency sale from the Morgan County Chancery Court in 1939 and through a donation by Lone Mountain Land Company in 1938. The Forest was known as the Lone Mountain Section of Morgan State Forest until 1970 when Morgan State Forest became part of the Division of State Parks and Lone Mountain became a separate State Forest. The Forest is located in the Cumberland Plateau and Mountains physiographic province in Morgan County. Forest types consist of 1,974 acres of upland hardwoods, 877 acres of mixed hardwood-pine, and 804 acres of pine. Little timber management has taken place because of the under stocked nature of the stands and repeated southern pine beetle damage.

Significance – Lone Mountain is adjacent to Catoosa WMA and borders the Emory River, identified by TWRA as an aquatic conservation zone. Lone Mountain proper is an outlying parcel of the Cumberland Mountains and is heavily utilized for recreation and forestry demonstrations.

State Forest Strategy – In-holdings and forest access, gaining it or controlling it, are the primary criteria for acquisitions.

Land Protection Needs – 402 acres at an estimated cost of $566,400

Potential Partners – Unknown


Lone Mountain State Forest
Cumberland Trail
Frozen Head
Catoosa
Lone Mountain State Forest
Lone Mtn
Catoosa WMA
Campground Creek
Flat Fork Creek
Jones Branch
Mud Creek
Taylor Branch
Summers Branch
Bonafacius Branch
Crooked Fork Creek
Vespie Branch
Bear Branch
Bardill Branch
Knight Branch
Emory River
Hall Branch
Mill Creek
Crab Orchard Creek
Coal Cut Branch
Muddy Branch
Bear Creek
Gow Branch
Ivy Branch
Galbreth Branch
Smith Branch
Horse Pen Branch
Laurel Branch
Mud Lick Creek
Butter Creek
Forked Creek
29
328
299
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
Need Access Point
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

LOST CREEK CAVE

Location – (N35.8419, W85.3608) Lost Creek Cave is located in White County at the base of a huge sink a half-mile south of the submergence of Lost Creek, 2.1 miles north-northeast of Dodson. (See Scotts Gulf map)

Geologic horizon - Ste. Genevieve-Gasper limestone

Description – According to Barr (1961): "Lost Creek Cave ("Dodson Cave") is one of the largest caves in Tennessee in terms of volume, although its total length is less than a mile and a half. The mouth is a huge opening 60 feet wide and 40 feet high, at the east side of the sink. Opposite, on the west side of the sink, is a spectacular 60-foot waterfall, which is fed by the stream from a small cave near the top. The stream falls into a circular pool 40 feet in diameter, and around the walls of the pool are a number of solutional openings. A wide stream bed, strewn with boulders, leads to the mouth of the cave. The floor of the entire sink reportedly has been filled with water during periods of heavy rain.

Lost Creek sinks at an elevation of 1,240 feet, 0.65 mile north of the cave mouth. It is possible that its stream emerges from the cave at the top of the sink, flows over the falls, and sinks, perhaps being encountered again in a 40-foot waterfall at the end of the main gallery of the cave.

The main passage, which is horseshoe-shaped, heads southwest at the mouth, swings 130° over a distance of 2,000 feet and runs almost due north for the last 500 feet. Near the mouth the gallery slants downward gradually; the floor is covered with sandstone cobbles and boulders, and the dimensions are about 40 feet wide and 15 feet high. A few hundred yards inside the cave a high lateral gallery opens to the left near the top of a vast dome 80 feet high and 50 feet wide. The sudden increase in ceiling height probably is the result of collapse of the floor of the upper-level passage. The high passage leads into a system of galleries totaling 1,800 feet in length. It is possible to enter the upper level, pass beneath the main gallery, and emerge on the far side.

At 2,000 feet there is a fork in the main cave, both forks rejoining in the final breakdown room of the cave. The left, lower fork has a number of confusing ramifications, most of which emerge in the right fork or in the waterfall room. The 40-foot falls is at the north end of a breakdown chamber 40 feet high, 60 feet wide, and 250 feet long. At the base of the falls the stream flows into a side passage and disappears under a ledge." Currently over 21,000 feet of passages have been mapped (Tennessee Cave Survey, 2002).

Significance – Site Importance Outstanding (B1) - Lost Creek Cave contains a remarkable assemblage of cave-obligate invertebrates, including *Triacanthella copelandi* (Copeland's springtail, S1), *Kleptochthonius daemonius* (pseudoscorpion, S1S2), *Scoterpes ventus* (millipede, S1S2), *Aloconota diversiseta* (rove beetle, S1), *Pseudanophthalmus* sp. (Rumbling Falls Cave beetle, S1), *Litocampa* sp. (Rumbling Falls Cave dipluran, S1), *Trechus cumberlandus* (Cumberland ground beetle, S2), *Stygobromus* sp. (Swamp River Cave amphipod, S1), and *Orconectes australis* (cave crayfish, S3) (Lewis, 2002). The cave is also

home to a winter roost of a small number of Indiana bats (*Myotis sodalis*, S1), which are state/federally endangered, with 41 bats counted during winter 2001-02 (Harvey, 2002).

Strategy – The entrance and adjoining sinkhole should be acquired and added to the nearby Bridgestone/Firestone Centennial Wilderness. Access to the cave should be monitored for impacts or abuse.

Land Protection Needs - 3.1 acres at an estimated cost of $9,000.

Potential Partners – TNC, TWRA, Tennessee Cave Survey, and TDEC.

MAGENDANZ FALLS

Location – (N36.3628, W84.8890) Magendanz Falls is located on the Cumberland Plateau in Fentress County only a few miles south of Allardt. (See Colditz Cove SNA map).

Description - Magendanz Falls Registered SNA is a 40 foot falls on a 16-acre site where Long Creek cuts through sandstone cap rock shortly before its confluence with Crooked Creek. The falls is not regarded for a spectacular drop but noteworthy for the plants that grow on the dripping edges and its scenic seclusion, as it is surrounded by a rhododendron slick.

Significance - Site Importance Moderate (B4) - The most notable plant reported growing here is the insectivorous round-leaved sundew (*Drosera rotundifolia*), which is known to occur in Blue Ridge Mountains at high elevations and is state threatened. Another disjunct plant from the Blue Ridge Mountains that occurs here is the sedge (*Carex prasina*). These plants, along with the orchids tuberous grass pink (*Calopogon puchelleus)* and rose pogonia (*Pogonia ophioglossoides)* which is state endangered, grow here as well.

Strategy - The site conservation of this area requires the purchase of this area for the protection of this small ledge bog community.

Land Protection Needs - 16.5 acres at an estimated cost of $41,000.

Potential Partners – TDEC and TPGF.

MARION COUNTY SINKHOLE

Location – (N35.0125, W85.7408) This small site is near the town of South Pittsburg in Marion county along Poplar Spring Branch approximately 0.4 miles from the Richard City limit.

Description – This approximately 8.0 acre site protects the mouth of Poplar Spring Pit that harbors a population of a federally threatened fern. The pit is located just upslope from Poplar Spring Branch on a hardwood-forested slope of a Cumberland Plateau cove. A small ephemeral stream flows into the pit over a cascading waterfall. The cool air and mist from the waterfall creates a microhabitat that supports the small fern population and other herbaceous plants that form a lush groundcover around the pit and on rock shelves below.

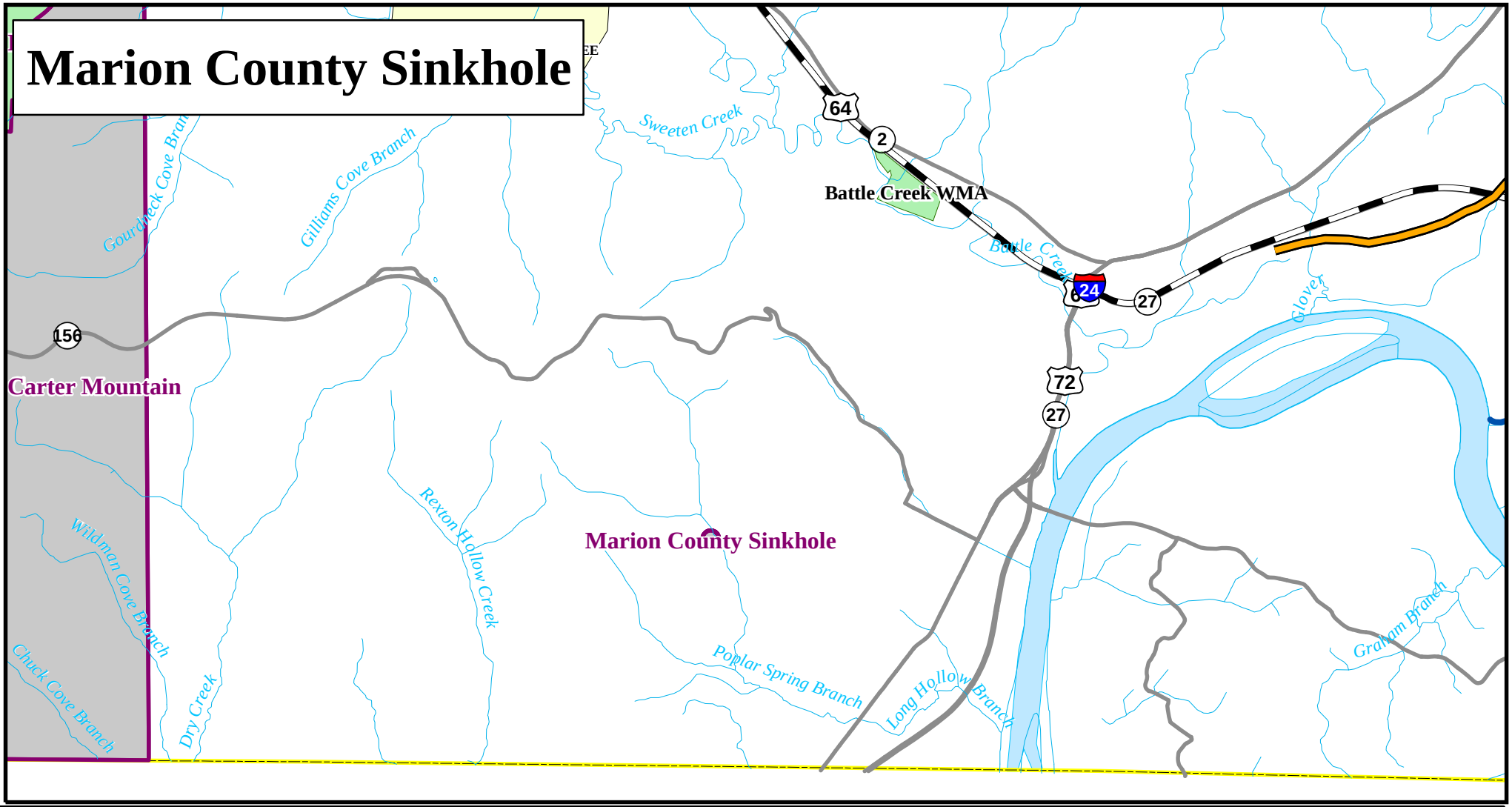
Significance – Site Importance High (B3) - The American Hart's-tongue Fern (*Asplenium scolopendrium* var. *americanum*) is federally threatened and state endangered, and is considered very rare and local throughout its range (G4T3) and extremely rare and critically imperiled within the state (S1). This is the only known extant site in the state, and one of only three known sites in the Southeast United States.

Strategy – A Recovery Land Acquisition grant(s) from the USFWS could be obtained to purchase tract(s) of land where Federal Listed species and associated habitat are known. Matching funds from the State Land Acquisition Fund would be necessary.

Land Protection Needs - 8 acres at an estimated cost of $13,000.

Potential Partners – Southeastern Cave Conservancy, TNC, South Cumberland Regional Land Trust, and TDEC.

Marion County Sinkhole



MEADOW CREEK SEEP

Location - (N35.4549, W85.5485) This estimated 7.8 acre site is in Grundy County north of Hwy 399 past Savage Gulf SNA. (See Savage Gulf map).

Description - The property consists of an upland stream head seep community, which was recently converted to a pine plantation.

Significance - Site Importance Very High (B2) - The stream head seep community has been converted to pine, however the pines are not growing well in the seep. The presence of the state endangered white fringeless orchid (*Platanthera integrilabia*) has benefited from the recent removal of forest canopy. The white fringeless orchid is listed as a federal candidate by the USFWS meaning sufficient information on biological vulnerability exists to support federal listing. Other species present but not rare include cardinal flower (*Lobelia cardinalis*), water hemlock (*Cicuta maculata*) and yellow fringed orchid (*Platanthera ciliaris*). The site has a very high importance (B2). There has been a dramatic decline in number or plants between 1997 and 2000, presumably from thick herbaceous cover. The population numbers at this site have been as high as 1000 flowering plants.

Strategy - The strategy for acquisition at Meadow Creek Seep is to acquire properties within and adjacent to the site design (site boundary) for access or access control, watershed protection, and preservation of rare species and representative communities. Preservation of these rare species and wildlife will provide educational opportunities for area colleges, universities, and the general public, and work toward preserving Tennessee's natural heritage.

Land Protection Needs - 7.8 acres at an estimated cost of $13,000.

Potential Partners- TDEC, TWRA, and TNC.

MEASLES GULF CAVE

Location – (N35.7053, W85.5306) Measles Gulf Cave is on the east side of Baker Mountain, in Marion County 1.6 miles east and slightly north of Grove Point, and 1.3 miles northeast of Highland Church, at an elevation of 1,370 feet.

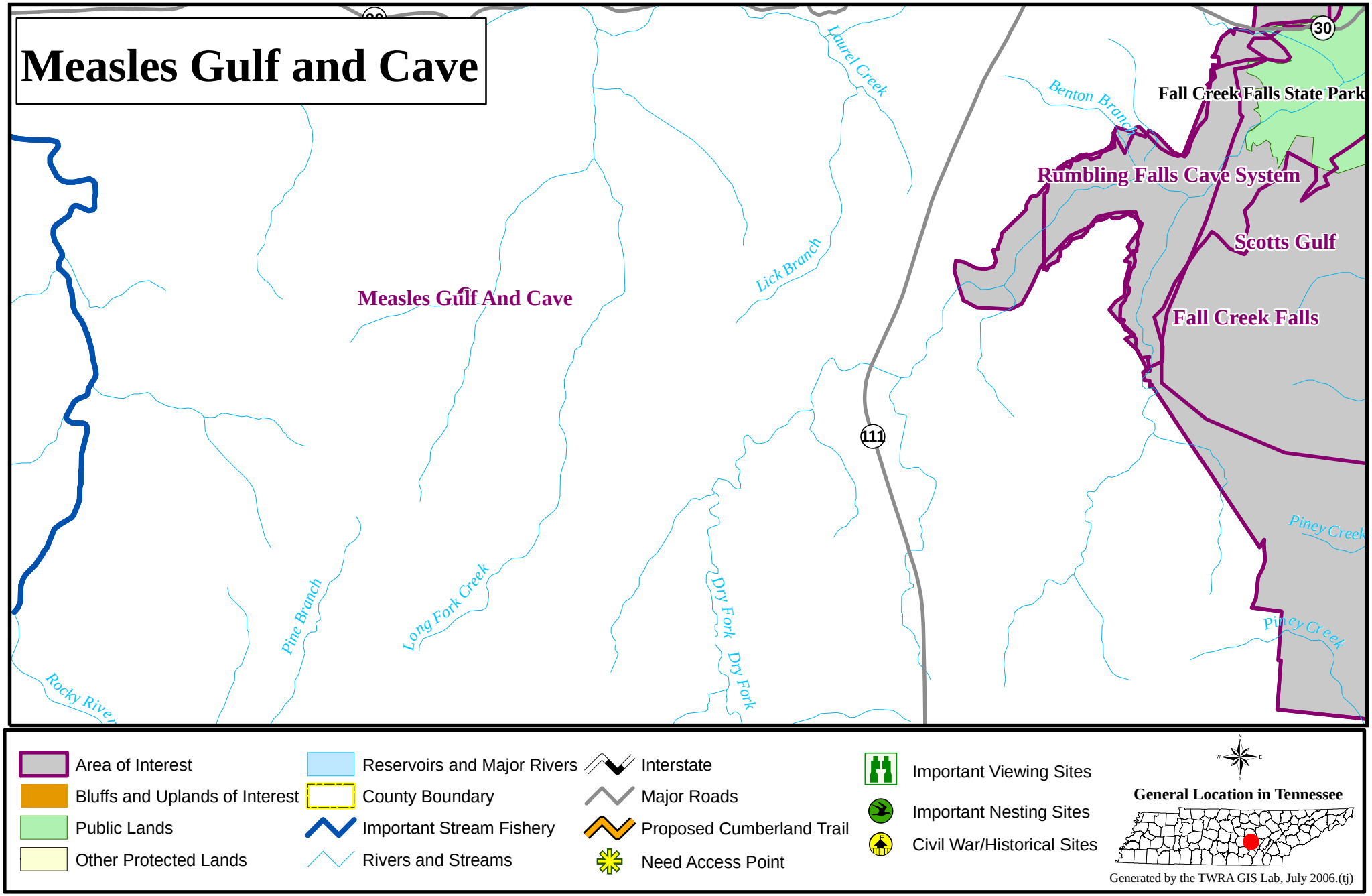
Description – (Geologic horizon - Bangor limestone) - According to Matthews (1971): "The entrance is in the woods at the northeast edge of a field. It is 6 feet high ad 25 feet wide. The floor slopes downward until the passage is 40 feet high and 25 feet wide. This passage extends northeast with these dimensions for 800 feet, at which point the cave ends in a breakdown. Near the entrance is the cast of a saltpeter vat. A stream flowing southwest enters and leaves the cave along the southeast wall. A 20-foot pit about 200 feet from the end of the cave may open into a lower level but was not explored. Another cast of a saltpeter vat is near this small pit. Tally marks were noted on the walls in the vicinity of both of these vats. A small colony of bats was roosting about midway through the cave.

Significance – Site Importance Moderate (B4) - Measles Gulf Cave is a winter roost for *Corynorhinus rafinesquii* (eastern big-eared bat, S3, deemed in-need-of-management). The estimated size of the colony has varied from 100-300 bats, with 100 big-eared bats observed as late as March 2002. This colony has been regarded as one of the largest in Tennessee for ten years, as *C. rafinesquii* is generally found in much lower numbers in both summer and winter roosts (< 50 individuals). A winter roost of this size is particularly significant, in part because this is a time during which the bats are most susceptible to disturbance.

Strategy – Due to the vulnerability of bat winter roosts to disturbance, the cave mouth and a reasonable portion of adjoining Measles Gulf should be acquired and protected. A forested buffer should be maintained around the cave. Any abandoned buildings, barns, etc. obtained in the acquisition of this site should be protected and stabilized as potential big-eared bat summer roosts.

Land Protection Needs – 4.1 acres at an estimated cost of $8,000.

Potential Partners – TDEC, TWRA, TNC, and Mr. Doug Malone (McMinnville).


Measles Gulf and Cave
Measles Gulf And Cave
Rumbling Falls Cave System
Scotts Gulf
Fall Creek Falls
Fall Creek Falls State Park
Laurel Creek
Benton Branch
Lick Branch
Pine Branch
Long Fork Creek
Dry Fork
Dry Fork
Piney Creek
Piney Creek
Rocky River
30
111
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

MEREDITH CAVE

Location – (N36.3389, W84.0403) Meredith Cave is located in Campbell County 0.25 miles north and slightly west of Shanghai Boat Dock, 6 miles southeast of LaFollette, at an elevation of 1,210 feet. (See Upper Cumberland map)

Description - According to Barr (1961): "Meredith Cave, also known as Saltpeter Cave, is one of the largest known caves in East Tennessee. It is a long, winding and branching cave. The entrance is a semicircular opening 40 feet wide and 12 feet high. Immediately back of the entrance is a spacious room about 190 feet long and from 40 to 60 feet wide. Back of this, most of the cave is much narrower. The combined length of all the penetrable passages is at least 5,149 feet. The average width for the entire cave is about 25 feet. The ceiling is unusually high, probably averaging between 60 and 70 feet. Most of the floor is dry and level. However, in a few places dripping water keeps it wet and in places it is necessary to progress up or down steep slopes."

Several formations are present in Meredith Cave, and many are still actively developing. Most of the deposits are black in color, as a result of natural staining. During the Civil War the earth on the floor of the cave was worked extensively for nitrates. The remnants of several wooden troughs and hoppers are still in the cave. Wagon tracks and markings where the walls were scratched by wagon wheels are still to be seen in the cave several hundred feet back of the entrance. Numerous white chalk-like deposits occur in the drier portions of the cave.

In 1929 the cave was being used by the entire community as a storage place for fruits and vegetables. In the dry places, such perishable farm products as sweet potatoes are said to keep from year to year. Several stairways were constructed in Meredith Cave about 30 years ago in an attempt to develop it as an attraction. These are now rotten and unsafe.

Archaeological investigations in Meredith Cave conducted by Webb (1938) revealed 13 burials near the entrance. Ash and midden debris were found to a distance of 600 feet from the mouth, and some pottery and bone instruments were uncovered."

Significance – Site Importance High (B2) - Meredith Cave was once believed to be a roost site for both gray (*Myotis grisescens*) and Indiana bats (*M. sodalis*)(S1 and S2 respectively). Neither species has been documented in recent surveys (Harvey, 2002). The cave is however the only known location of *Pseudanophthalmus sidus* (Meredith Cave beetle, S1), a cave-obligate species last reported in 1965. The gray bat also may be using the site as a migratory stopover roost at times when few surveys are conducted.

Strategy – Following successful re-inventory for *P. sidus*, the cave should be monitored for excessive visitation, and the cave and an immediate area should be protected.

Land Protection Needs – 6.9 acres at an estimated cost of $24,750.

Potential Partners – TDEC, TNC, TVA, TWRA, and USFWS.

MILL CAVE

Location – (N35.8558, W84.9269) Mill Cave is 1.0 mile north-northwest of Grassy Cove community in Cumberland County, 2,000 feet west of Hwy. 68, at the foot of Brady Mountain, at an elevation of 1,550 feet. (See Brady Mountain map)

Description – (Geologic horizon - Ste. Genevieve-Gasper limestone) - According to Barr (1961): "Mill Cave is one of the largest caves in Middle Tennessee and is popularly supposed to be the headwaters of Sequatchie River, 7.5 miles to the southwest and 390 feet lower in elevation. It is possible that its stream emerges in Devilstep Hollow. The entire drainage from Grassy Cove, including the stream from Bristow Cave, flows into the mouth and through the cave.

The main entrance is 30 feet wide and 10 feet high. A passage 15 to 20 feet high and 30 feet wide runs westward for 3,500 feet to the second entrance, which is 8 feet high and 25 feet wide and opens high above the stream. Beyond the second entrance the cave continues with much larger dimensions-80 feet wide and 75 feet high. It was explored for another 3,600 feet, through two extensive breakdowns. The stream has rapids in many places, and huge boulders covered with a thin, wet film of silt make progress very difficult."

Significance - Site Importance High (B3) - Mill Cave is one of three known locations for the cave-obligate *Pseudanophthalmus jonesi* (Grassy Cove Cave beetle, S1S2). Though the species has not been reported there since it was described in the 1940s, this may be an artifact of limited sampling. The cave also is a notable geologic and hydrologic resource, as it drains the entirety of Grassy Cove, a National Natural Landmark.

Strategy – Following successful re-inventory for *P. jonesi*, the cave should be monitored for excessive visitation and for water quality, and as appropriate, the cave and an immediate buffer area should be acquired and protected.

Land Protection Needs - 5 acres at an estimated cost of $13,000

Potential Partners – TNC, TWRA, and TDEC

MILL CREEK HEMLOCK FOREST

Location – (N36.3006, W85.4761) Site is approximately 12 miles north of Cookeville in Putnam and Overton Counties, west of State Highway 136. (See Roaring River map)

Description – This site is approximately 80 acres and is located on the Highland Rim of the Cumberland Plateau. This mature forested tract occurs along the slopes of Mill Creek which flows north over Ordivician limestone into the Spring Creek State Scenic River. Eastern hemlock (*Tsuga canadensis*) dominates the slopes. Other trees and shrubs include tulip poplar, hop hornbeam, mountain laurel, dogwood, sourwood, big leaf magnolia, umbrella magnolia, spicebush, American beech, red maple, mountain stewardia, strawberry bush, and various oaks and hickories.

Significance – Site Importance Moderate (B4) - During her review of sites recommended for potential natural landmarks, Keever (1971) indicated that the Mill Creek slopes contain the best example of a semi-virgin hemlock forest on the Highland Rim of the Cumberland Plateau. Eastern hemlock is much more abundant on the Plateau proper and the Mill Creek site also contains other species more common further east such as arrow wood (*Viburnum dentatum*) and big leaf magnolia (*Magnolia macrophylla*).

The hemlock forests in the eastern United States are threatened from the hemlock woolly adelgid, a small aphid-like insect from Asia. Since this pest is now in East Tennessee, the Mill Creek slopes could act as a refuge for the hemlock since it located further west than most hemlock stands in the state.

Since this site is adjacent to Spring Creek, its protection would only enhance the beauty and protection of the scenic river.

Strategy – Forest legacy funding could be used for site protection.

Land Protection Needs - 82.6 acres at an estimated cost of $225,000.

Potential Partners – TDA, TNC, and TDEC.

References – Keever, Catherine. 1971. A study of the mixed mesophytic, and oak chestnut regions of the eastern deciduous forest including a review of the vegetation and sites recommended as potential natural landmarks. Prepared for the National Park Service.

MINGO SWAMP WMA

Location – (N35.1595, W86.2147) The Mingo Swamp lies between Hwys 50 and 64, north of the community of Belvedere and six miles west of Winchester in Franklin County.

Description - Mingo Swamp is a large karst fen surrounded by a low rim 20-50 feet high, enclosing a drainage basin of about four square miles. The soil is extremely impermeable and water remains in the swamp for most of the winter and into early spring. Mingo Pond is the only semi-permanent open water within the swamp and has a great diversity of plant species. The core of the swamp is a willow and water oak swamp with very little plant diversity. Higher sites are predominately willow, white, and red oaks, red maple and ash stands with a diverse plant understory. Past and current use is agricultural with some harvesting of timber.

Significance - Mingo Swamp is representative of a vanishing ecosystem once common on the Interior Low Plateaus. It is of national significance ecologically and geologically. In a 1978 publication, Mingo Swamp was recommended as a National Natural Landmark by Dr. Elsie Quarterman and R. L. Powell. It is regarded as the largest undrained karst fen in the Interior Low Plateaus. It is one of the last oak swamps remaining in this area. It is one of only four sites in Tennessee and one of approximately 15 in the Southeast that contains a late glacial pollen record which can provide critical information concerning the biota and climate of the Middle Tennessee area over the past several thousand years.

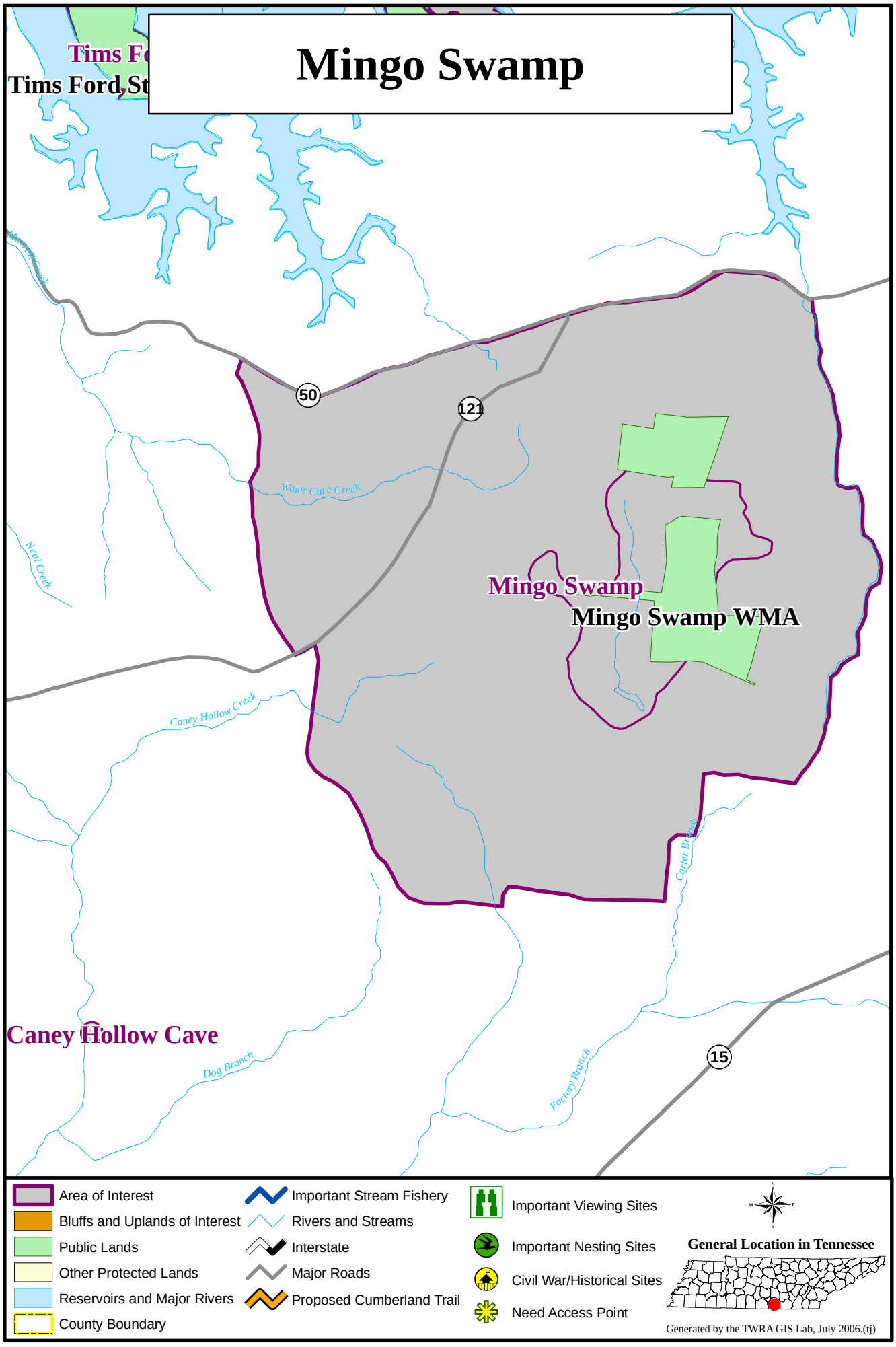
Populations of several rare plants are known from here, as well as high quality natural communities. The site includes Mingo Pond, a 38.5 acre herbaceous marsh feature formed by the collapse of limestone. Core samples by DelCourt (1979) yielded sediments 14,000 years in age.

Three state threatened rare plant species are found on the site: the state imperiled (S2S3) Canby's lobelia (*Lobelia canbyi*), state threatened and state critically imperiled (S1) globe fruit false loosestrife (*Ludwigia sphaerocarpa*) and state imperiled (S2)wide-leaved yellow-eyed grass (*Xyris laxifolia* var. *iridifolia*). A formerly state listed animal, mole salamander (*Ambystoma talpoideum*) is located with the site design. The site has a high (B3) biodiversity significance in Tennessee.

The project area provides many different avian habitats and is a biodiverse ecosystem. Species such as common snipe, swamp sparrow, hooded warbler, Swainson's warbler, prothonotary warbler, white-eyed vireo, blue grosbeak, common yellowthroat, marsh wren, Louisiana waterthrush, yellow-throated warbler, belted kingfisher, and song sparrow can be found here. It is an important winter habitat for a variety of waterfowl species while also providing habitat for, white-tailed deer, wild turkey, and other wildlife.

Land Protection Needs – 5,033 acres at a cost of $4,844,500.

Potential Partners – TWRA and TDEC.


Mingo Swamp
Tims Ford, St
50
121
15
Water Cure Creek
Neal Creek
Caney Hollow Creek
Dog Branch
Factory Branch
Carter Branch
Mingo Swamp
Mingo Swamp WMA
Caney Hollow Cave
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
Need Access Point
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

MUD CREEK SWAMP

Location – (N35.7484, W85.6632) Mud Creek Swamp is located in Warren County north of Hwy 30, approximately 2.5 miles east of McMinnville and extends northward to the L &N railroad track. (See Rock Island State Park map)

Description – This 136 acre site encompasses a wetlands complex located in the Eastern Highland Rim. Associated plant species include: red maple, lizard's tail, arrowhead, jewelweed, and Jack-in-the-pulpit.

Significance – Site Importance Moderate (B4) - Mud Creek Swamp provides habitat for the state listed fen orchis (*Liparis loeselii*), a type of orchid. Listed as threatened, fen orchis is considered demonstrably secure globally (G5) but extremely rare and critically imperiled in the state (S1). There are only 12 extant occurrences known from Tennessee.

Strategy – Acquisition of properties within and adjacent to the site would provide watershed protection as well as preservation of rare species and their associated habitat.

Land Protection Needs – 136.6 acres at a cost of $115,000.

Potential Partners – TDEC and TWRA.

NORRIS DAM STATE PARK

Location – (N36.2419, 84.1021) Norris Dam is located on Highway 441 in Campbell County near the city of Norris. The park is located on the shore of Norris Lake and situated on 4,000 acres in the ridge and valley region of East Tennessee.

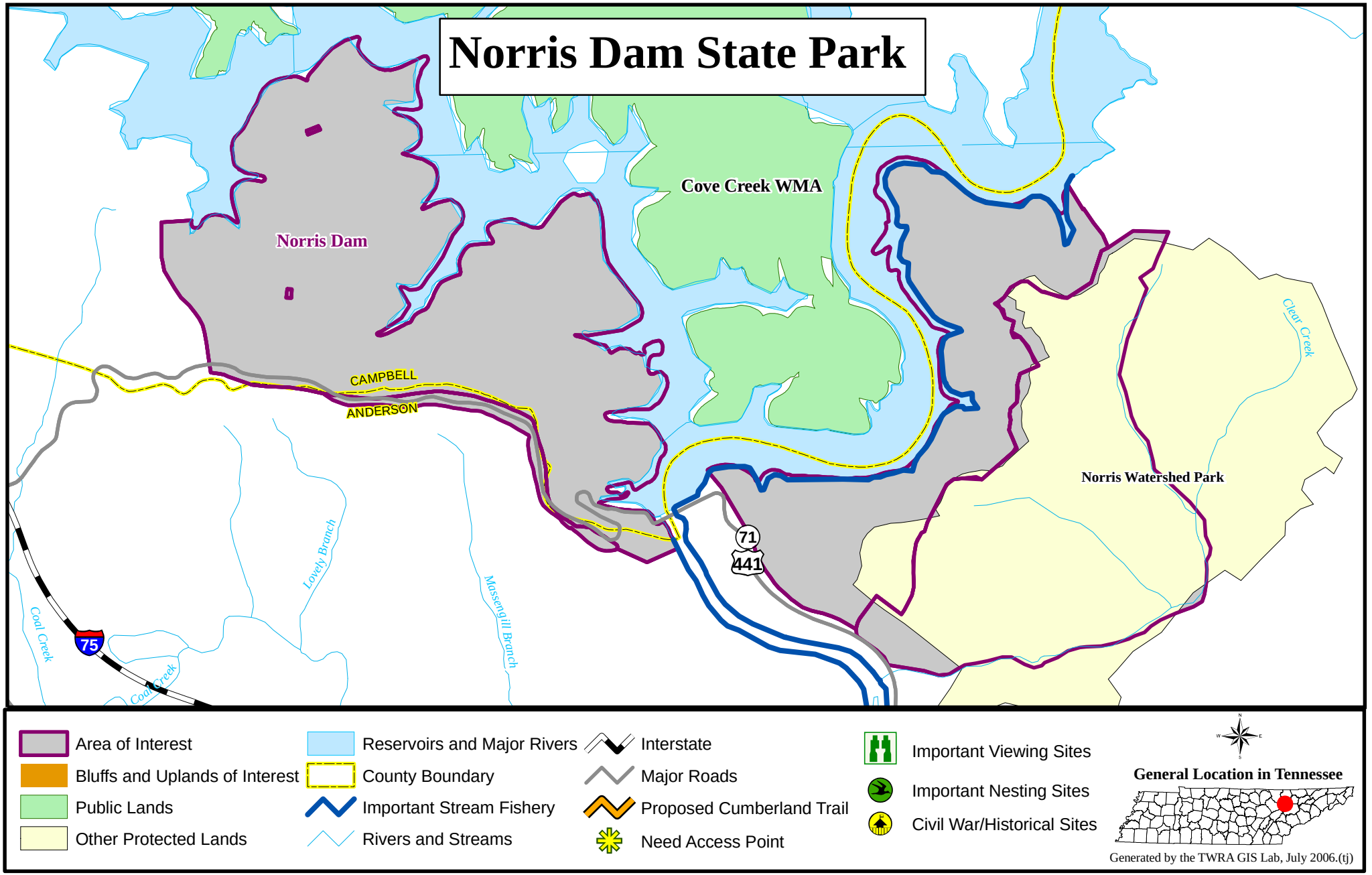
Significance - During construction of Norris Dam, TVA's first project, President Roosevelt sent workers known as the Civilian Conservation Corp (CCC) to create a recreational park. Many (36) of the facilities that were constructed by the CCC in 1933 are still in use.

The park provides 19 rustic cabins and 10 modern cabins, meeting rooms, a 75 site modern campground, picnic areas and pavilions, hiking fishing, the Lenoir Museum, swimming pool and a privately operated fully equipped marina.

Strategy - The strategy for future acquisitions for Norris Dam State Park is to acquire properties surrounding the park for watershed protection and properties that have significant cultural and natural features that further the wildlife, aesthetics, interpretive and recreation missions of Norris Dam State Park.

Land Protection Needs – 705 acres at an estimated cost of $2,350,000.

Potential Partners - TCF, TNC, and TDEC.


Norris Dam State Park
Cove Creek WMA
Norris Dam
CAMPBELL
ANDERSON
Norris Watershed Park
Clear Creek
Lovely Branch
Massengill Branch
Coal Creek
Coal Creek
75
71
441
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

NORTH CHICKAMAUGA CREEK WMA, NORTH CHICKAMAUGA CREEK GORGE SNA, AND FALLING WATER FALLS SNA

Location - 1: North Chickamauga Creek (N35.1527, W85.3027) is located on the Cumberland Plateau in Hamilton and Sequatchie Counties 15 miles north of Chattanooga. **2: Falling Water Falls** (N35.1872, W85.2767) is located on the Cumberland Plateau in Hamilton County about 10 miles north of downtown Chattanooga partly within the Town of Walden where a small cliff top section of the natural area occurs while most of the natural area is located below the falls in Soddy Daisy.

Description - 1: **North Chickamauga Creek Gorge** is currently a 4,864-acre SNA. It is an outstanding deep gorge cut into the sandstone plateau of Walden's Ridge on the Cumberland Plateau. The gorge is approximately ten miles long with steep slopes, sandstone bluffs, and rich coves. A high diversity of plant and animal habitat exists in the gorge. A mixed mesophytic forest combines with oak-hickory, and oak-pine forests to form a rich mosaic throughout much of the gorge. Small pockets of old growth forest with towering tulip poplar, yellow buckeye, and basswood occur in remote locations where rugged topography has protected the forest from past logging. 2. **Falling Water Falls** is a 132 acre SNA named for the 110' high waterfall on Little Falling Water Creek that drops over the resistant sandstone cap of the Cumberland Plateau. It plunges into the Falling Water Gorge, tumbling over cascades and passing large moss covered boulders, before joining the Big Falling Water Creek in Pickett Gulf. The vertical cliffs of the escarpment with its rugged, steep, rocky slopes appear in stark contrast to Falling Water Falls Gorge. The gorge is sheltered and stays moist with mist coming from the falls and cascades during most of the year. A scenic vista of the Tennessee River Valley, Pickett Gulf and Buzzard Point exists at the top of the falls above the 840-feet-high escarpment. Far below, Levi Cave is located at the base of the escarpment slope. A small 2-foot wide hole leads down into a 750-feet-long cave consisting of several large rooms and dripstone formations.

Significance - 1.**North Chickamauga Gorge SNA** has ten state and/or federally listed plants occurring in the gorge including the federally threatened large-flowered skullcap (*Scutellaria montana*) and the federally endangered Virginia spiraea (*Spiraea virginiana*). Bald eagles (*Haliaeetus leucocephalus*) and peregrine falcons (*Falco peregrinus*) have also been reported here. On the uplands and bluffs, there are oak-hickory and oak-pine forests, upland ponds, and sandstone glades and barrens. Riverside shoals and stream cobble bars in North Chickamauga Creek provide habitat for several threatened and endangered plants. The creek is a popular kayaking stream during parts of the year. It is also a popular destination for hikers. The natural area is contiguous to the 1,000 acre Bowater- owned North Chickamauga Creek Pocket Wilderness and Registered SNA on the east side of the creek. 2. **Falling Water Falls** has second growth hardwood forest comprised of oak-hickory and mixed mesophytic forest communities. There is an oak-pine forest on the drier parts of the natural area, particularly above the falls. Mountain laurel and rosebay rhododendron are common. Falling Water Falls supports a great diversity of plant and animal life including a small population of the large-flowered skullcap (*S. montana*).

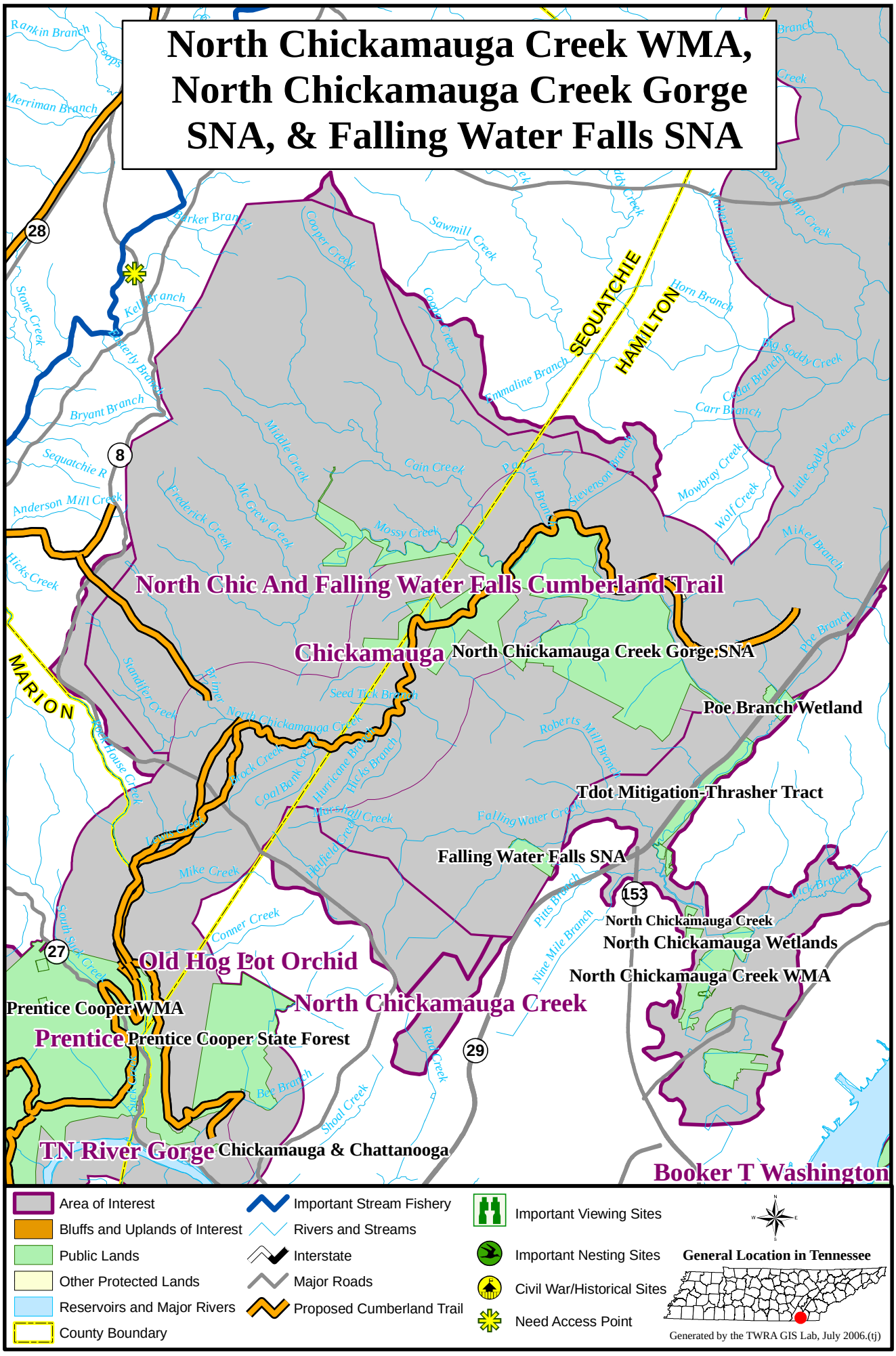
Strategy - The conservation site plan proposes to protect most of the watershed which includes the remaining unprotected gorge and upland and its creek and tributaries for both North

Chickamauga Creek and Falling Water Falls. In accomplishing this task, these two SNAs would become contiguous in certain locations. Significant acreage proposed for acquisition in the conservation site plan is owned by a relatively few number of landowners who own large tracts. Completion of this plan would increase the total acres for both natural areas combined to 44,153 acres.

Land Protection Needs – 22,621 areas at an approximate cost of $25,686,440

Potential Partners – The North Chickamauga Creek Conservancy has already taken a lead role in the protection of the area and continues to be an active partner. Grants from Forest Legacy and North American Wetland Conservation Act have assisted in past activities and will also be sought in the future. Bowater, USFWS, and TDEC are also potential partners.

North Chickamauga Creek WMA, North Chickamauga Creek Gorge SNA, & Falling Water Falls SNA



OLD CCC ROAD BARKING TREEFROG POND

Location – (N35.1050, W858934) This property is located in Franklin County just outside the Franklin/Marion State Forest on the Old CCC Road off Highway 156. (See Carter Mountain map)

Description - The most important element of this property a one acre limestone sinkpond. The locals call this an antediluvian pond because of its ancient appearance. Tall sweetgums tower over a pond surrounded by buttonbush and covered with watershield. The neighbors also call this Copperhead pond with just reason. The pond is surrounded by 68.9 acres of mixed mesophytic hardwood forests.

Significance - The area has a rich herpetofauna including the mole Salamander (*Ambystoma talpoideum*) and the barking treefrog (*Hyla gratiosa*), with both species deemed in-need-of-management. This pond is host to one of the few known breeding populations of barking treefrogs in the Cumberland Mountains. It holds water throughout the year, a requirement for *H. gratiosa* in this region.

This area is being developed rapidly with secondary homes. There are no known dolomite ponds such as this anywhere else in this region.

Lands Protection Needs - 69 acres at an estimated cost of $128,200.

Potential Partners – TWRA, TDEC, TDA, and existing landowners and neighbors.

OLD HOG LOT ORCHID SITE

Location – (N35.1643, W85.3574) This small site is in Hamilton County within the town of Signal Mountain along Shackleford Ridge Road approximately 0.25 miles north of Prentice Cooper State Forest. (See North Chickamauga Creek map).

Description – This approximately 3.5 acre site used to be a hog lot. Now it is a young upland mixed-hardwoods forest. The site occupied by the orchids is at the head of a hollow that drains into Stanley Branch. Signal Mountain is a growing residential community outside Chattanooga and this location will likely be developed in the near future.

Significance – Site Importance High (B3) - Two federally listed species occur on this site. The small whorled pogonia (*Isotria medeoloides*) is federally threatened and state endangered, and is considered very rare and imperiled globally (G2) and extremely rare and critically imperiled within the state (S1). This orchid is considered to be one of the rarest orchids east of the Mississippi River. There are only two known locations within the state and this may represent the only viable occurrence. The large-flowered skullcap (*Scutellaria montana*) also occurs at this location. The large-flowered skullcap is federally and state threatened, and is considered very rare and imperiled globally (G2) and very rare and imperiled within the state (S2). A few dozen plants are scattered in this location.

Strategy: – A Recovery Land Acquisition grant(s) from the USFWS could be obtained to purchase tract(s) of land where Federal Listed species and associated habitat are known. Matching funds from the State Land Acquisition Fund would be necessary. It is possible to expand Prentice Cooper State Forest to include this location.

Land Protection Needs – 3.5 acres at an estimated cost of $13,000.

Potential Partners – TDA, TDEC, and City of Signal Mountain.

OLD TURNPIKE ROAD

Location - (N35.1302, W86.0324) The approximately 950 acre site is located in southeast central Franklin County. (See Carter Mountain map)

Description - The site is on the steep western escarpment of the Cumberland Plateau. Roadsides of the well worn jeep trail bisects a forest whose canopy ranges from mostly closed to partially open. The forests are primarily comprised of yellow chestnut oak, white oak, black oak, sugar maple, fragrant sumac, hop hornbeam, rusty black-haw, and smoke tree.

Significance - Site Importance High (B3) - This site has a high biodiversity significance (B3) based on globally imperiled (G2) rare plant populations. All rare plants known within the site design are considered imperiled (S2) in Tennessee and include the state endangered Cumberland rosinweed (*Silphium brachiatum*); and state special concern mountain honeysuckle (*Lonicera dioica*), smoketree (*Cotinus obovatus*) and white prairie-clover (*Dalea candida*). The preservation of this site would add approximately 950 contiguous acres onto the TNC owned David Carter TNC Preserve.

Strategy - The strategy for acquisition at Old Turnpike Road is to acquire properties within and adjacent to the site design (site boundary) for access or access control, watershed protection, and preservation of rare species and representative communities. Preservation of these rare species and wildlife will provide educational opportunities for area colleges, universities, and the general public, and work toward preserving Tennessee's natural heritage.

Land Protection Needs - 716 acres at an estimated cost of $640,000.

Potential Partners - TNC, TWRA, TDA, and TDEC.

OZONE FALLS SNA

Location – (N35.8800, W84.8203) Ozone Falls is on the Cumberland Plateau located in Cumberland County. The falls are located off Hwy 70 about 4 miles from the I-40 exit.

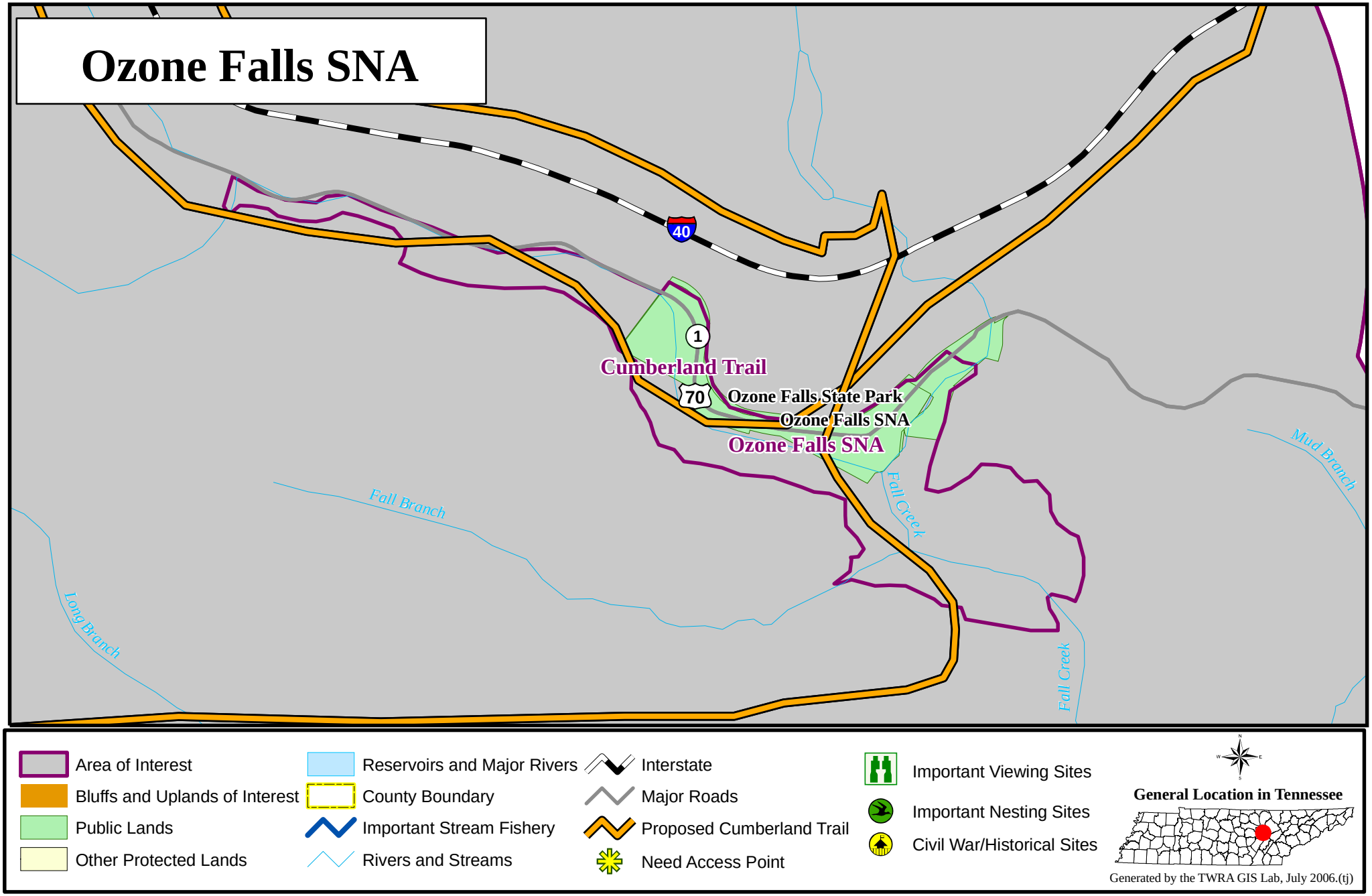
Description - Ozone Falls is a 26-acre natural area. Ozone Falls plunges 110 feet over a sandstone cap rock into a deep blue, rock-strewn pool. Fall Creek then disappears underground until it re-emerges several feet downstream. An impressive rock house "amphitheater" can be seen behind the falls that was created over geologic time by wind, water, freeze/thaw, and erosion. Fall Creek below the falls contains many huge boulders, some the size of houses, and many small placid pools. A rugged ¾-mile trail begins along the bluff near the falls and then descends into the gorge passing a small rock house called Gamblers Den.

Significance - Small open glades occur on the bluffs that support native grasses and prairie plants. The surrounding upland vegetation is dominated by oaks and Virginia pine. A remnant old-growth mixed mesophytic forest community is found beneath the waterfall. It is comprised of eastern hemlock, white pine, magnolia, yellow birch, sugar maple, tulip poplar, and red oak and with rosebay rhododendron in the shrub layer.

Strategy - Presently the State owns 26 acres of this area. The site conservation plan proposes the protection 190 additional acres that include the remainder of the gorge and bluff line. This will ensure protection of the gorge view corridor, geologic features, and plant and animal community and enhance greater public access opportunity to the area.

Land Protection Needs – 190 acres at an estimated cost of $200,000.

Potential Partners - TDEC.


Ozone Falls SNA
40
1
70
Cumberland Trail
Ozone Falls State Park
Ozone Falls SNA
Ozone Falls SNA
Fall Branch
Fall Creek
Mud Branch
Long Branch
Fall Creek
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

PETERS BRIDGE SANDSTONE ROCKHOUSES

Location – (N36.3206, W84.7858) This area is located in Fentress and Morgan Counties near the Clear Fork River south of Hwy 52 near the community of Allardt. (See Rugby map)

Description – This site is an approximately 110 acre area in a sharp bend of the Clear Fork River just outside of the Big South Fork National River and Recreation area. A series of sandstone rockhouses are located here, which contain a significant natural plant community found on the northern Cumberland Plateau. The cooler, moister environment created by the rockhouses creates growing conditions different from the surrounding forest. This different environment is suitable to a unique assemblage of mosses, liverworts, ferns, and endemic herbaceous plants.

Significance – Site Importance Very High (B2) - This site contains ten occurrences of the Cumberland sandwort (*Arenaria cumberlandensis*). The Cumberland sandwort is federally endangered, and is considered very rare and imperiled globally (G2) and within the state (S2) according to Natural Heritage data. The sandwort is not found outside of the Big South Fork River drainage. A population of Lucy Braun's white snakeroot (*Agertina luciae-brauniae*) is also located here. Lucy Braun's white snakeroot is state threatened, and is considered very rare and local throughout its range globally (G3) but rare and uncommon within the state (S3). The piratebush (*Buckleya distichophllya*) was historically known from this area. Piratebush is state threatened, and is considered very rare and imperiled globally (G2) and within the state (S2). The Swainson's warbler (*Limnothlypis swainsonii*) is also known from this area. Swainson's warbler is deemed in-need-of-mManagement, and is considered apparently secure globally (G4) but rare and uncommon within the state (S3).

Strategy – A Recovery Land Acquisition grant(s) from the USFWS could be obtained to purchase tracts of land along this river corridor where Federal Listed species and associated habitat are known. Matching funds from the State Land Acquisition Fund would be necessary.

Land Protection Needs - 108 acres at an estimated cost of $140,000.

Potential Partners – TDEC and NPS.

PICKETT STATE FOREST, WMA, AND STATE PARK

Location – (N36.5690, W84.8496) This project is located in Pickett and Fentress counties approximately 10 miles northeast of Jamestown, TN. The Big South Fork National River and Recreation Area bound the project to the east and the Daniel Boone National Forest to the north in Kentucky with Pickett State Forest as the central focus area.

Description - Pickett State Forest contains 20,043 acres. The topography of this area includes very steep gorge-like drainages characteristic of major drainages of this region. The tops of the Plateau surrounding these gorges are relatively flat to rolling hills underlain with sandstone and typically low in fertility. Due to fire, the area historically was predominantly pine and mix pine/hardwoods. Due to its topography and the advent of fire control, many of the gorges are now in oak/hickory and some cove hardwood forest types. The project lies in a rugged region and includes several karst features such as caves, rock cliffs, springs and waterfalls.

Pickett Forest originated from a land donation to the State by Stearns Coal and Lumber Company in 1933. It became a State Forest in 1934. At the time of donation, most of the merchantable sawtimber had been removed and the area had been repeatedly subjected to fire and grazing. About 53% of the Forest is in hardwood types, 24% in pine type, and 21% in mixed hardwood and pine. Ninety-five percent of the Forest is in trees older than 40 years and most of the area is well stocked. Between 1994 and 2004 an additional 9,700 acres have been added to the forest through various acquisitions. The latest being over 1,600 acres acquired along Jim Creek through purchase and a donation from TNC.

The State Park was formed in 1949 (270 acres) in and around the old CCC camp with an additional 575 acres added in 1970. The area traditionally has offered extensive outdoor recreational opportunities and part of the existing state forest is managed as a WMA while the state park offers a variety of non-consumptive outdoor recreational activities. The John Muir Trail runs through much of the Forest and now connects the Park with Jim Creek.

Significance - The entire Cumberland Plateau region is one of the most biologically diverse areas remaining in the eastern United States, particularly notable is a tremendous number of neo-tropical birds. The area contains several caves that are home to at least one federally endangered species, the Indiana Bat, as well as several other troglobitic species such as the blind crayfish. The Black Mountain Dusky Salamander, listed as “in need of management” is known to occur in this general area and is restricted to the northern half of the Cumberland Plateau. Other species of note inhabiting this northern plateau area include the Eastern Woodrat and Slender Glass Lizard, both listed as “in need of management”.

The scenic bluff overlooks offer extraordinary vistas of extensive gorges, sheer sandstone cliffs, and other areas such as “Yellow Door” geological formation. The project is also part of the area where Sergeant Alvin York developed his hunting skill and sought spiritual inspiration prior to World War I. There are also 45 known archaeological sites on the areas already protected.

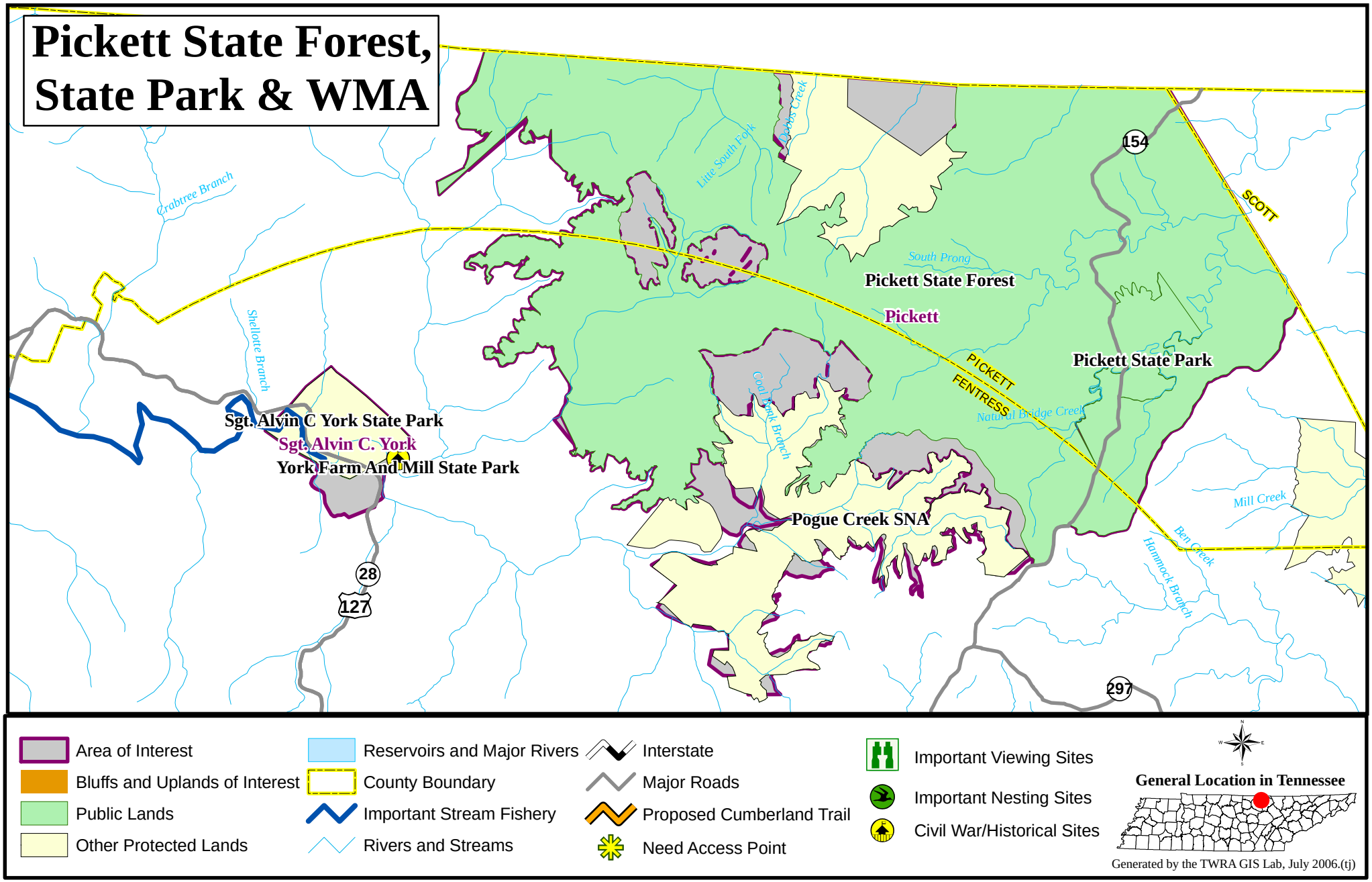
Strategy – The strategy for future acquisitions to Pickett State Forest is to acquire in-holdings, properties surrounding the forest for access or access control, watershed protection, and

properties that contain representative forest cover types of the Plateau, escarpment and gorges, that further the wildlife, aesthetics, demonstration, timber production and recreation missions of the State Forest System.

The strategy for future acquisitions to Pickett State Park are to acquire in-holdings, properties surrounding the park for access or access control, watershed protection, and properties that contain representative forest cover types of the Cumberland Plateau, escarpment and gorges, that further the wildlife, aesthetics, interpretive, and recreation missions of the State Park System.

Land Protection Needs – 7,039 acres at an estimated cost of $5,971,100.

Potential Partners — TNC has made Pickett Forest one of its top priorities and is already working to protect large acreages. They already have protected areas along Pogue Creek and the Tally Wilderness straddling the Kentucky border. They are seeking Forest Legacy Funding for additional work in the area. NWTF has indicated an interest in protecting lands in this project area and making them accessible to users.


Pickett State Forest, State Park & WMA
Crabtree Branch
Little South Fork
Dodds Creek
South Prong
Shellotte Branch
Coal Creek Branch
Natural Bridge Creek
Mill Creek
Ben Creek
Hammock Branch
154
SCOTT
PICKETT
FENTRESS
Pickett State Forest
Pickett
Pickett State Park
Sgt. Alvin C York State Park
Sgt. Alvin C. York
York Farm And Mill State Park
Pogue Creek SNA
28
127
297
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

PINEY RIVER WATERSHED, STINGING FORK FALLS AND PINEY FALLS SNAs

Location - The Piney River Watershed project area is approximately 5 miles North of Spring City in Rhea County. The project area includes **Stinging Fork Falls** (N 35.7179, W84.9251) and **Piney Falls** (N35.7233, W84.8677) SNAs

Description - The Piney River watershed lies on the eastern escarpment of the Cumberland Plateau. The eastern escarpment is characterized by steep forested slopes and high velocity, high gradient streams. Local relief is often 1000 feet or more. Vegetation community types in the ravines and gorges include mixed oak and chestnut oak on the upper slopes , more mesic forests on the middle and lower slopes (beech-tulip poplar, sugar maple-basswood-ash-buckeye), with hemlock along rocky streamsides and river birch along floodplain terraces

1. **Stinging Fork Falls** is a 104-acre SNA owned by Bowater, Inc. It is named for the 30 ft. waterfall located within the Stinging Fork gorge. The creek waters slide over the fan shaped falls, then quickly slip through chutes, and tumble over cascades below the falls. **2. Piney Falls** is a 440-acre SNA located where Little Piney and Soak Creeks have carved deep gorges into the Cumberland Plateau. Piney Falls is recognized as one of only 14 National Natural Landmarks in Tennessee. These landmarks are recognized as the country's best remaining examples of major biotic communities and geologic features.

Significance - The Piney River is one of the highest quality streams on the eastern escarpment of the Cumberland Plateau. There is little development in the drainage leaving the forested slopes intact. Remote, rugged terrain and ownership patterns have limited wildlife survey efforts in this watershed. The Tennessee Wildlife Action Plan (TWAP) identified a diverse mix of ecological systems within the watershed (Table 1). The diversity of available habitats indicates that additional wildlife survey work would yield even higher species diversity than represented in tables 2 and 3 (especially for amphibians, reptiles, and mammals).

The Laurel Dace is an endemic fish that is found in only three systems on Walden Ridge. There are three creeks within the Piney River watershed with extant Laurel Dace populations: Young Creek, Moccasin Creek, and Bumbee Creek.

1. Stinging Fork Falls gorge contains a 60- year old second growth mixed mesophytic forest community. Seep cliffs may be found along the smaller bluffs that descend into the gorge. An oak-pine forest can be found along the gorge bluff. Indian Head Point provides a view of the gorge and creek 160 feet below. **2. Piney Falls** is especially significant because of its old growth forest. The tallest and most magnificent trees are the white pines that are found in the mixed mesophytic forest that occur on lower slopes in the gorge below Lower Piney Falls. These trees are nearly 40 inches in diameter and exceed 100 feet in height. The mixed mesophytic forest below the Upper Falls is not nearly as spectacular, as it lacks the giant white pines found in the gorge below Lower Piney Falls. However, large tulip poplar, hemlock, buckeye, and basswood do grow below Upper Piney Falls.

Strategy - The site conservation plan proposes to acquire Bowater properties and other lands that would connect the subunits as a large landscape scale project. This project also includes sections of Piney Creek and locations where the Cumberland Trail is planned to be built.

Land Protection Needs – 8,042 acres at an estimated cost of $6,000,000.

Potential Partners – TDEC, TWRA, TNC, TDA, and Bowater Inc.

Table 1. Significant ecological systems identified by the TWAP in the Piney River watershed.

South-Central Interior Mesophytic Forest
Southern and Central Appalachian Cove Forest
Appalachian Hemlock-Hardwood Forest
Allegheny-Cumberland Sandstone Box Canyon and Rockhouse
South –Central Interior Small Stream and Riparian
Cumberland Seepage Forest

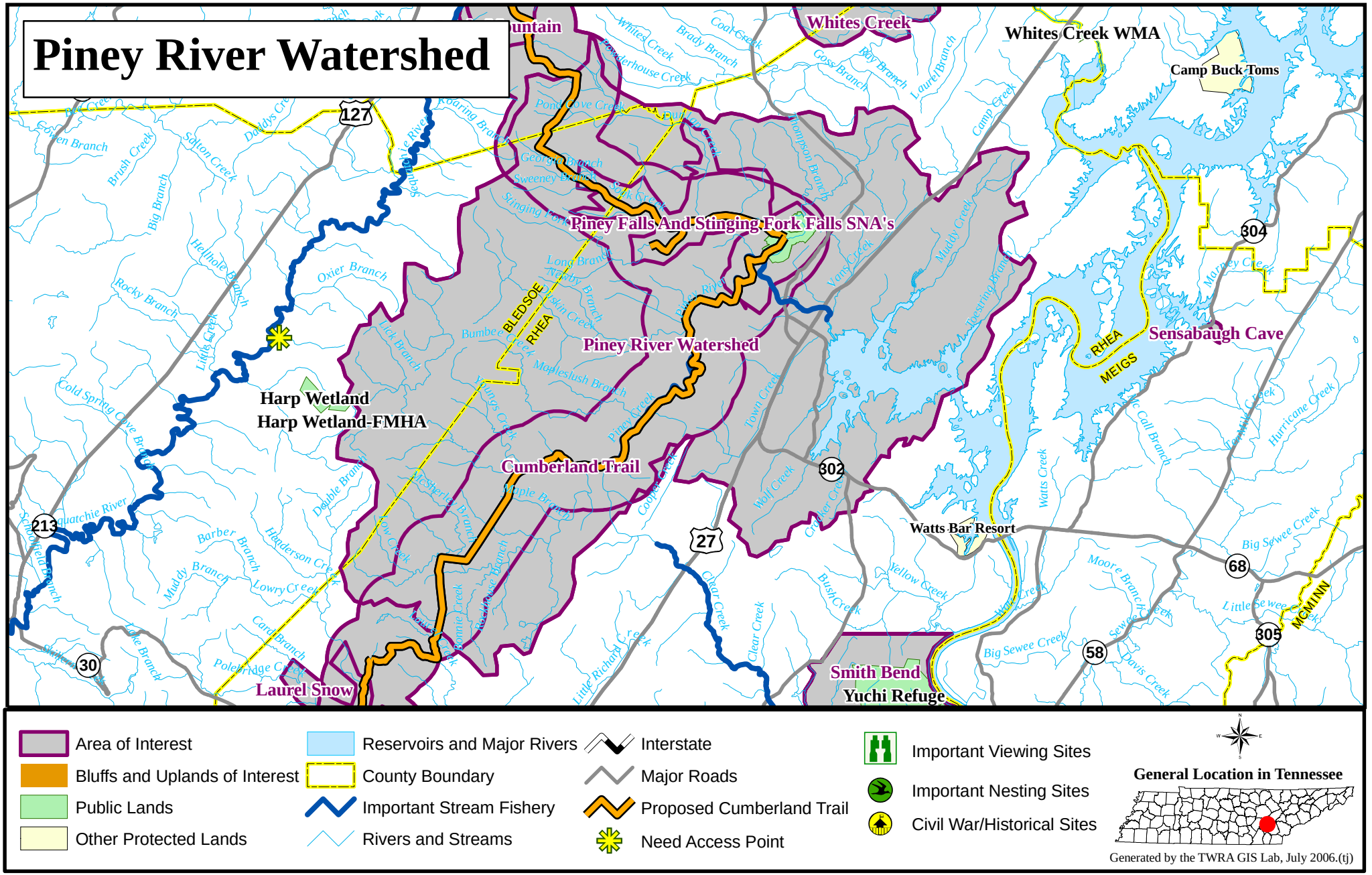
Table 2. Aquatic species identified by the TWAP as occurring in the Piney River watershed.

TaxaGrp	Common Name	Fed Status	State Status	GCN*
Fish	Laurel Dace		E	Yes
Fish	Tangerine Darter		D	Yes
Fish	Tennessee Dace		D	Yes
Fish	Flame Chub	MC	D	Yes
Amphibian	Black Mountain Dusky Salamander			Yes

Table 3. Terrestrial species identified by the TWAP as occurring in the Piney River watershed

TaxaGrp	Common Name	Fed Status	State Status	GCN*
Bird	Cerulean Warbler	MC	D	Yes
Bird	Bachman's Sparrow	MC	E	Yes
Bird	Whip-poor-will			Yes
Bird	Yellow-throated Vireo			Yes
Bird	Yellow-throated Warbler			Yes
Bird	Worm-eating Warbler			Yes
Bird	American Woodcock			Yes
Bird	Yellow-billed Cuckoo	(PS)		Yes
Bird	Eastern Wood-pewee			Yes
Bird	Black-throated Green Warbler			Yes
Bird	Bald Eagle	LT	D	Yes
Bird	Hooded Warbler			Yes
Bird	Wood Thrush			Yes
Bird	Kentucky Warbler			Yes
Bird	Acadian Flycatcher			Yes
Mammal	Rafinesque's Big-eared Bat	MC	D	Yes

*GCN - Species of Greatest Conservation Need as identified by the TWAP).


Piney River Watershed
Whites Creek
Whites Creek WMA
Camp Buck Toms
Piney Falls And Stinging Fork Falls SNA's
Piney River Watershed
Harp Wetland
Harp Wetland-FMHA
Cumberland Trail
Watts Bar Resort
Sensabaugh Cave
Smith Bend
Yuchi Refuge
Laurel Snow
BLEDSOE
RHEA
MEIGS
127
213
30
27
302
304
305
68
58
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

PLANTATION POND

Location - The approximately 20 acre site is located in Grundy County near the Sequatchie County line along the south rim of Dry Creek Gulch. (See Savage Gulf map)

Description - Shallow pond surrounded by a boggy margin comprised of sphagnum moss mat, which is surrounded by flat swampy woods dominated by red maple and black gum. Other species present include poison sumac, hazel alder, royal fern, cinnamon fern and netted chain fern, tubercled rein orchid, small green wood orchid, yellow fringed orchid and crested yellow orchid. The area was extensively timbered and converted to pine plantation except for pond and creek border. The site is surrounded by a large private commercial forest and abandoned stripmines.

Significance - The state endangered, globally very rare white fringeless orchid (*Platanthera integrilabia*) is known from the site design. Other species present include poison sumac (*Toxicodendron vernix*), hazel alder (*Alnus serrulata*), royal fern (*Osmunda regalis*), cinnamon fern (*Osmunda cinnamomea*), netted chain fern (*Woodwardia areolata*), tubercled rein orchid (*Platanthera flava var. herbiola),* small green wood orchid (*Platanthera clavellata*), yellow fringed orchid (*Platanthera ciliaris*) and crested yellow orchid (*Platanthera cristata*). While it is not a state-listed plant the poison sumac is known from only six counties in Tennessee and is an indicator of wetland communities. The tubercled rein orchid is a state-threatened plant species. The white fringeless orchid is also listed as a candidate species by the USFWS, meaning sufficient information exists to list at the federal level. Some of these species are more typical in areas of the coastal plain.

Strategy - The strategy for acquisition at Plantation Pond is to acquire properties within and adjacent to the site design for access or access control, watershed protection, and preservation of rare species and representative communities. Preservation of these rare species and wildlife will provide educational opportunities for area colleges, universities, and the general public, and work toward preserving Tennessee's natural heritage. The remoteness of this site would limit disturbance but would also limit opportunities for management activities. Presence of the white fringeless orchid should be verified prior to future conservation efforts.

Land Protection Needs - 20 acres at a cost of 20,000.

Potential Partners - Bowater, TWRA, TDA, and TNC.

POWELL RIVER PRESERVE SNA

Location – (N36.5539, W83.5920) Powell River Preserve is located in Claiborne County in the Ridge and Valley north of Tazewell on the Powell River. It is on River Road off of Hwy 25E.

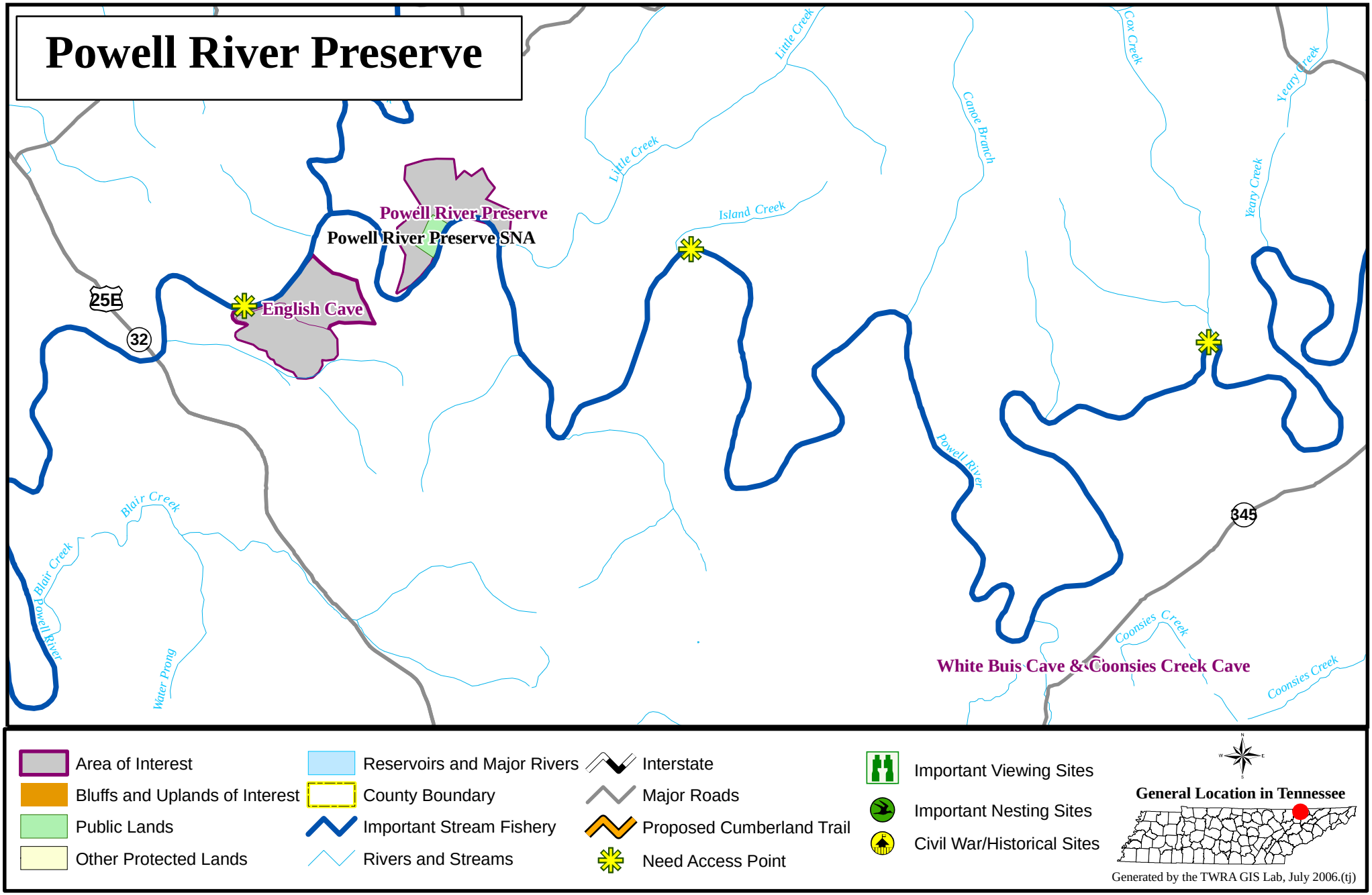
Description - This small 29 acre preserve occurs on moist calcareous slopes where wet seeps support large populations of state listed species. The natural area contains a small seep area and white cedar shrub area both of which are relatively small. Much of the natural area is a mixed mesophytic forest with oak species, white ash, red and sugar maple, buckeye, basswood, and tulip poplar. Chinkapin oak is the most dominant species at midslope, while tulip poplar is most prevalent on the lower slopes. There are also open areas down slope that occur on bedrock ledges where marl and loose stone create a medium that grows moss, parnassia, selaginella, sedges, and panic-grass. Barren species like little bluestem, sunflower, boneset, coreopsis, and goldenrods grow where soils tend to accumulate in open areas. Alder, cane, sycamore, Indian grass, and little bluestem occur in a riparian plant community near the river,

Significance - The most distinctive communities at the Powell River Preserve are the northern white cedar shrub community and white cedar mixed hardwood community. The shrub community is a discontinuous stand of shrubs and stunted trees that form a dense thicket around the rocky opening. The inside of the cedar stand is dark and the litter layer is of a "mor" type, often characteristic of conifers. Shrubs commonly associated with this rocky area include witch hazel, spicebush, fragrant sumac, and southern black haw. Trees in this community include hackberry, redbud, eastern red cedar, tulip poplar, chinkapin oak, and white cedar. In the small seep area there are several rare species which include shining ladies'-tresses (*Spiranthes lucida*), maple-leaf alumroot (*Heuchera longiflora var. aceroides*), and grass-of-parnassus (*Parnassi grandifolia),* along with more common species like cane, coreopsis, and false rue.

Strategy - The site conservation plan for Powell River Preserve expands the area into surrounding forest land to enhance protection of the core conservation area. Upon completion of the acquisition project, Powell River Preserve would be expanded to 270 acres.

Land Protection Needs: - 244 acres at an estimated cost of $275,000.

Potential Partners: - TDEC and TNC.


Powell River Preserve
Powell River Preserve
Powell River Preserve SNA
English Cave
White Buis Cave & Coonsies Creek Cave
25E
32
345
Little Creek
Little Creek
Island Creek
Canoe Branch
Cox Creek
Yeary Creek
Yeary Creek
Powell River
Blair Creek
Blair Creek
Powell River
Water Prong
Coonsies Creek
Coonsies Creek
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

PRENTICE COOPER STATE FOREST AND WMA

Location – (N35.1115, W85.4432) Prentice Cooper is located in Marion County adjacent the town of Signal Mountain and along the Tennessee River just west of Chattanooga.

Description - Prentice Cooper State Forest - (23,759 acres) The property for Prentice Cooper was acquired by fee simple purchase between 1938 and 1944. The site was proclaimed a State Forest in 1945. Sixty-nine percent of the forest is in multiple use-regulated forests and the remainder is in conservation areas that include the Hicks Gap SNA and unregulated scenic areas.

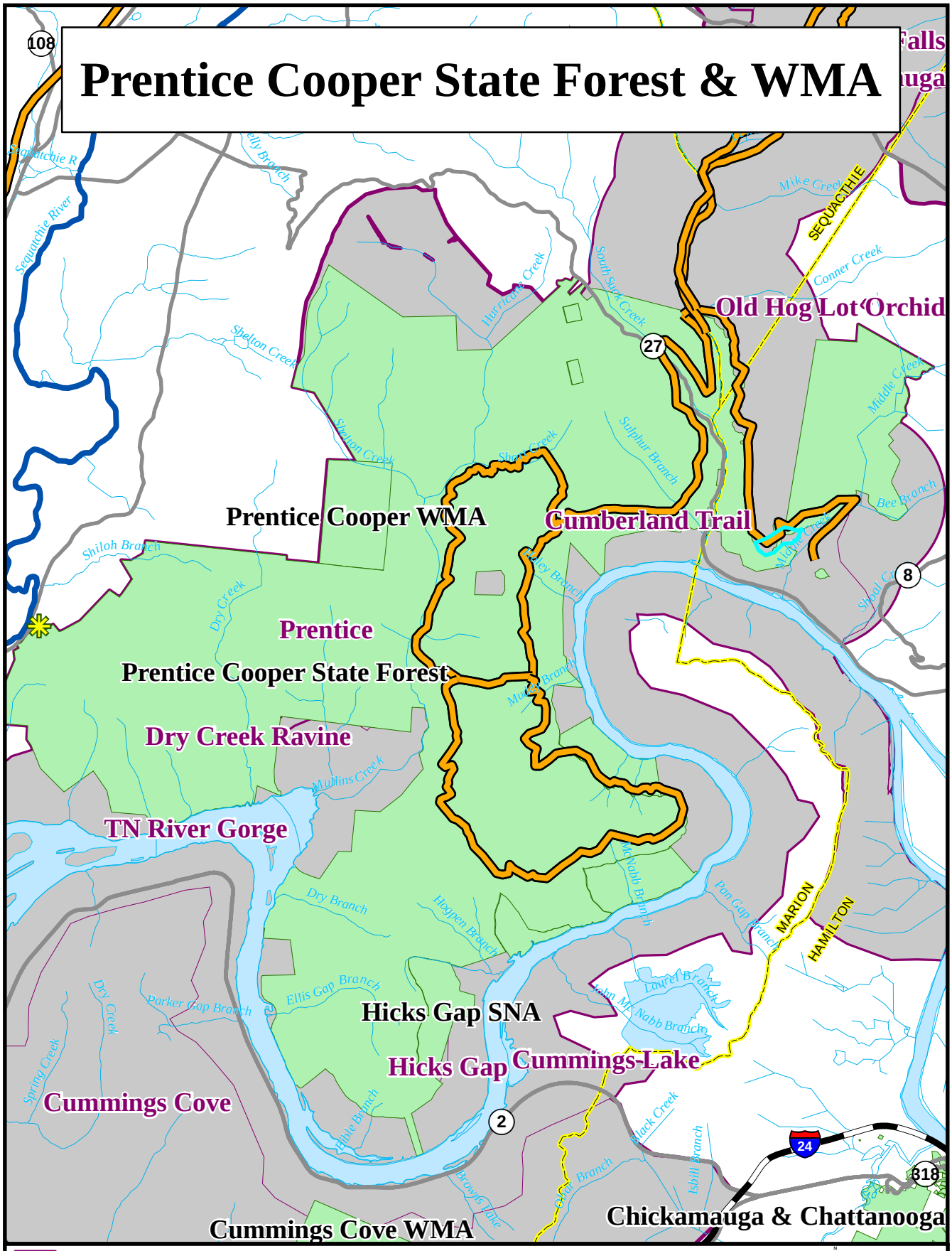
Significance – Like most of the Plateau escarpment, cliffs and scenic views are prime conservation values. This area is heavily utilized for recreation and hunting. The "Tennessee Wall" is a world class rock climbing location. Much of the area is managed for the scenic value of the Tennessee River Gorge with some of the area under agreement with the Tennessee Gorge Trust to protect the river's scenic value. Also located on the forest is the Hicks Gap SNA, home of the federally listed large flowered skullcap (*Scutellaria montana*).

Strategy - Acquisition of in-holdings and for access and access control to the forest are the primary criteria for additions to the Forest.

Land Protection Needs – 1,017 acres at an estimated cost of $1,430,900.

Potential Partners – TDA and Forest Legacy.

Prentice Cooper State Forest & WMA

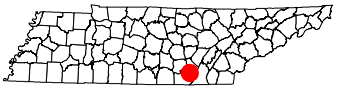


Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary

Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail

Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
Need Access Point

General Location in Tennessee



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ROARING CREEK GORGE

Location – (N35.4770, W85.1227) Roaring Creek Gorge is located on the Cumberland Plateau in Bledsoe and Rhea Counties just northeast of Graysville. It is located on the Brayton and Graysville quadrangles.

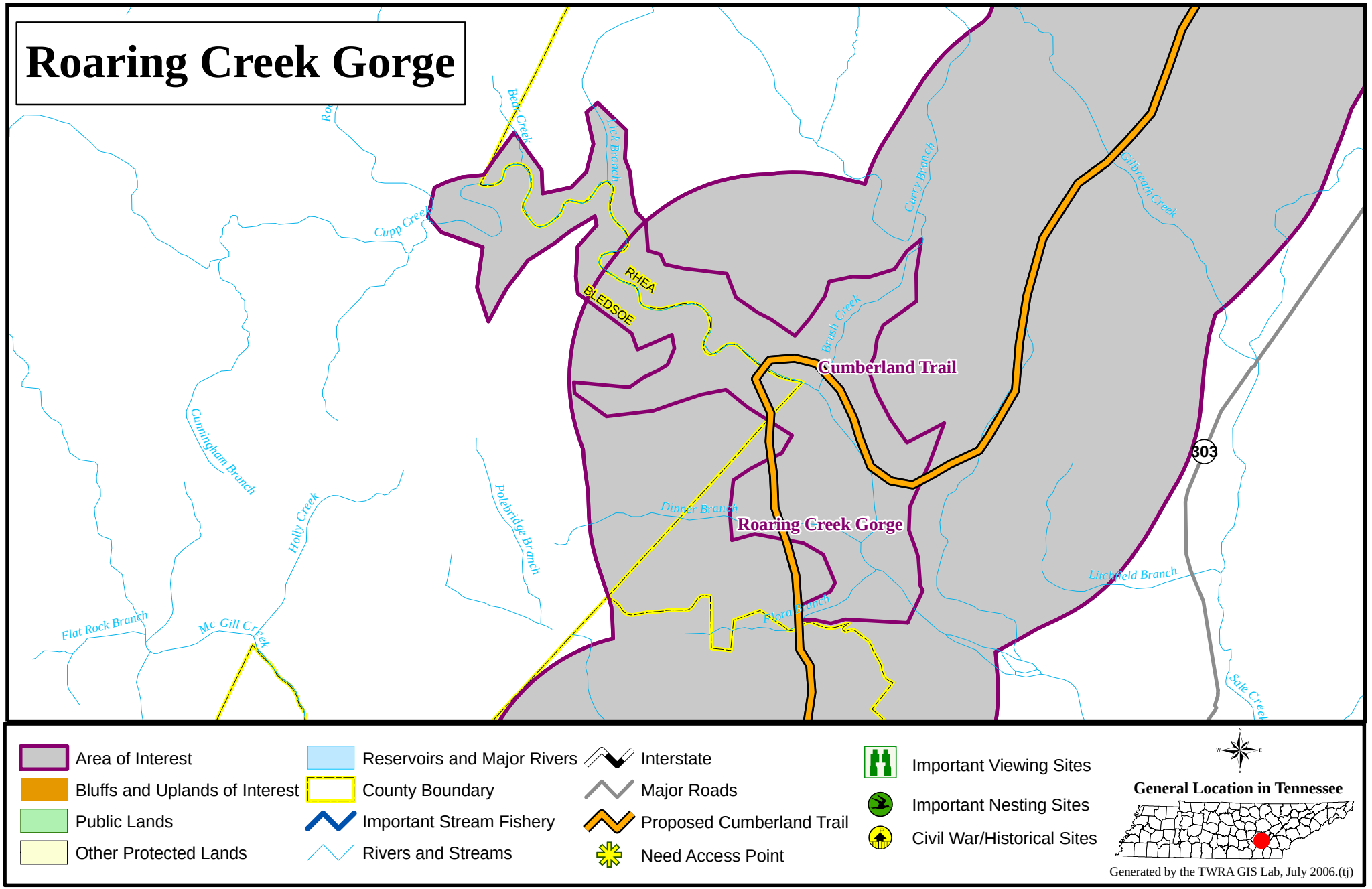
Description - Roaring Creek Gorge is a 1,500-acre gorge with steep escarpments and a deeply cut gorge that is reported to have undisturbed high quality forest throughout the area.

Significance - This area needs inventory but is reported to have high quality forest land which is likely to support mixed mesophytic forest communities in the gorge and along its lower slopes becoming dryer at higher elevations where would likely grade into in oak hickory forest type and then change to oak-pine forest at its upper elevations. A site visit to this area has not yet been completed by the DNA, but is pending. Roaring Creek Gorge is noted as a whitewater kayaking stream with Class III, IV, and V runs. It also located in the planning area for development of the Cumberland Trail

Strategy - This importance of this area has not yet been confirmed at this time by the DNA. However, reports from others who have visited this gorge have indicated that it is high quality and in need of protection. This report conditionally proposes acquisition pending a site visit and inventory by the DNA.

Land Protection Needs – 1,535 acres at an estimated cost of $1,700,000.

Potential Partners - TDEC.


Roaring Creek Gorge
Beck Creek
Tick Branch
Curry Branch
Gilbreath Creek
Cupp Creek
RHEA
BLEDSOE
Brush Creek
Cumberland Trail
303
Cunningham Branch
Holly Creek
Polebridge Branch
Dinner Branch
Roaring Creek Gorge
Litchfield Branch
Flora Branch
Flat Rock Branch
Mc Gill Creek
Sale Creek
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

ROARING RIVER-BLACKBURN FORK-SPRING CREEK STATE SCENIC RIVER COMPLEX

Location – (N36.3408, W85.5277) This complex of three state scenic rivers is located in Jackson, Overton, and Putnum Counties. Blackburn Fork Scenic River begins at the county road at Cummings Mill and continues downstream to its confluence with the Roaring River; Roaring Scenic River begins at Hwy 136 and continues downstream to Cordell Hull Lake; Spring Creek Scenic River begins at Hwy 136 and continues downstream to its confluence with the Roaring River.

Description – The Blackburn Fork State Scenic River begins as a Class I Natural Scenic River and continues for approximately 1.5f miles, dropping approximately 150 feet as its cuts its way through the Highland Rim Fort Payne limestone formation. Downstream from this relatively undisturbed river segment Blackburn Fork is a Class II Pastoral Scenic River as it becomes much more placid and lined with floodplains, some of which are used for agricultural purposes. In this Class II section, the river gently drops approximately 170 feet over 13 miles before joining the Roaring River. The Roaring State Scenic River begins at Highway 136 in Overton County as a class I Natural River Area and continues for approximately 2 miles dropping some 140 feet along the way. From 2 miles below the Highway 136 bridge to the Cordell Hull Lake the river is designated as a Class II Pastoral River and drops an additional 145 feet over 9 miles. The Spring Creek and Blackburn Fork Scenic Rivers join it along this quieter stretch. The Spring Creek State Scenic River begins at Highway 136 on the Overton-Putnam County line. The first segment is a Class II Pastoral River between Highway 136 and the Waterloo Mill, dropping about 30 feet in a mile and a half as it meanders through pastoral farmland on the Eastern Highland Rim. From the Waterloo Mill to the Overton-Jackson County line Spring Creek is designated as a Class I Natural River. This segment drops approximately 90 feet in elevation while only traveling 4 miles, with nearly half of this drop is at Waterloo Falls itself. From the Overton-Jackson County line to its confluence with the Roaring River it is again a Class II Pastoral River as it winds its way through a rural/agricultural landscape.

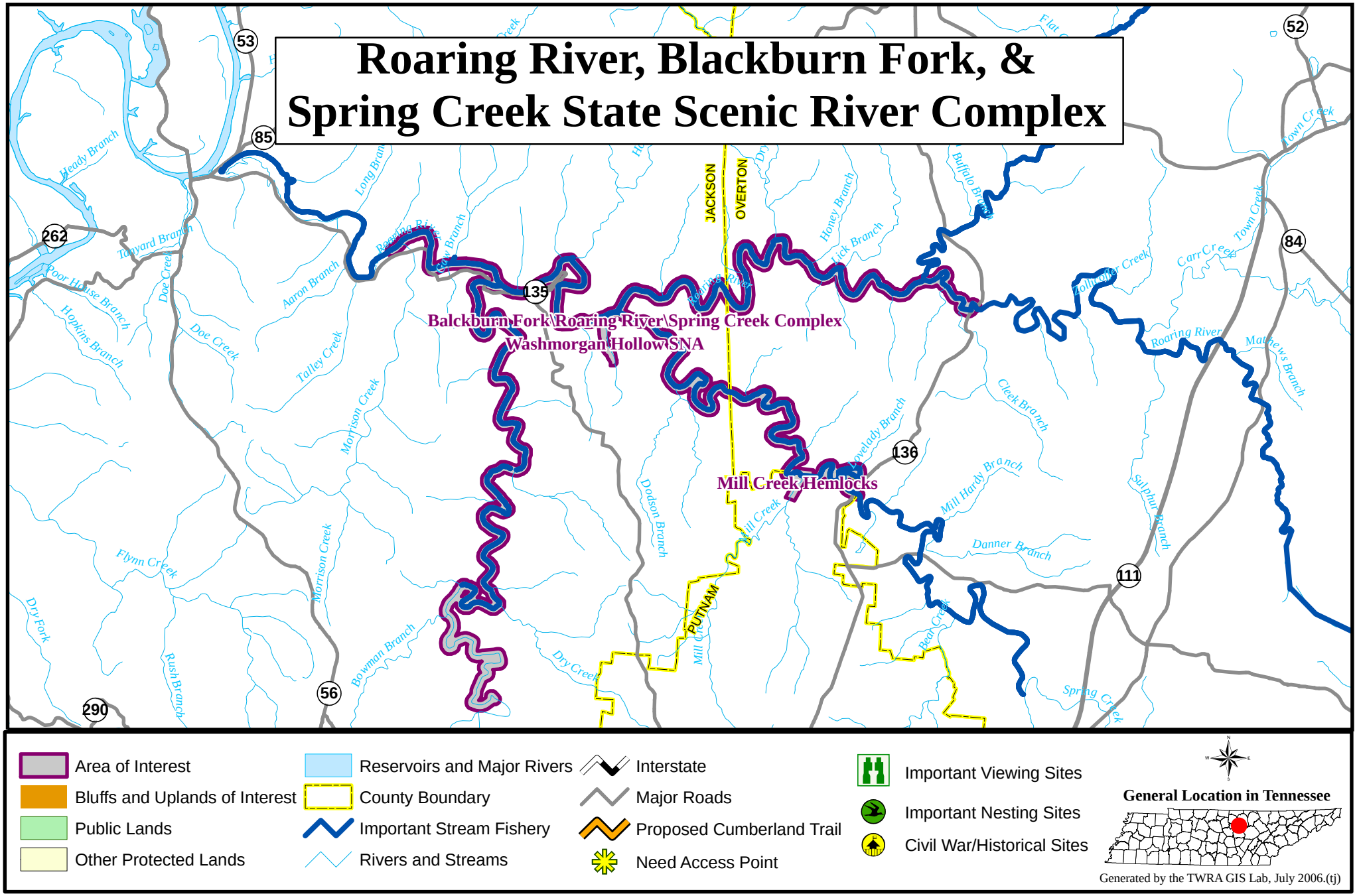
Significance – Much of the significance of this complex of rivers is their scenic values. The upper reaches of each of these rivers are designated as Class I Natural Rivers, are largely undisturbed, and are located within deep gorges lined with hemlocks and mountain laurel where they cascade over numerous large and small waterfalls. They also each pass by the remains of several old mills. The lower reaches are Class II Pastoral Rivers passing through a gently rolling landscape with wide floodplains dominated by agricultural fields and rural homes. Located on Blackburn Fork State Scenic River is Cummins Falls near the site of an old mill, one of the most spectacular waterfalls in the area cascading some 50 feet into the gorge below. On Roaring River is an approximate 13-foot Roaring River Falls located at the site of an old mill, and located along its lower reaches is a high volume spring discharge known as the "boils" (which has recently been acquired by TWRA). On Spring Creek are numerous waterfalls, most notable the approximate 5-foot Upper Waterloo Falls and the approximate 35-foot Waterloo Falls located at the site of an old mill. Also located on the Roaring River is Washmorgan Hollow SNA.

Strategy – Protecting the riparian corridors of these rivers, and connecting contiguous protected areas to other state and other publicly owned lands along these rivers is a major strategy. The

external boundaries of Class I scenic rivers shall include the entire scenic vista from the river and its banks, and in the case of gorge rivers shall be no more than 3,000 feet from the center of the river on either side. On Class II rivers the external boundary should include the vista from the river and shall be no more than 450 feet from the usual banks of the river. Methods for conserving these areas are by fee title purchases, conservation easements, landowner assistance programs, and conservation buyers. Public and private partnerships are key to protecting and maintaining this relatively unspoiled river, however, public ownership of the entire river corridor is not practical. Strategically located river access points will also be critical.

Land Protection Needs – 1,000 acres at an estimated cost of $1,650,000.

Potential Partners - TDEC, TWRA, TNC, USFWS, USACE, County Governments, Private Corporations, Foundations, Individual Donors.


Roaring River, Blackburn Fork, & Spring Creek State Scenic River Complex
Balckburn Fork\Roaring River\Spring Creek Complex
Washmorgan Hollow SNA
Mill Creek Hemlocks
JACKSON
OVERTON
PUTNAM
53
85
52
262
135
84
136
111
56
290
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

ROCK ISLAND STATE PARK

Location - Rock Island State Park is located approximately 15 miles southwest of Sparta in Warren County.

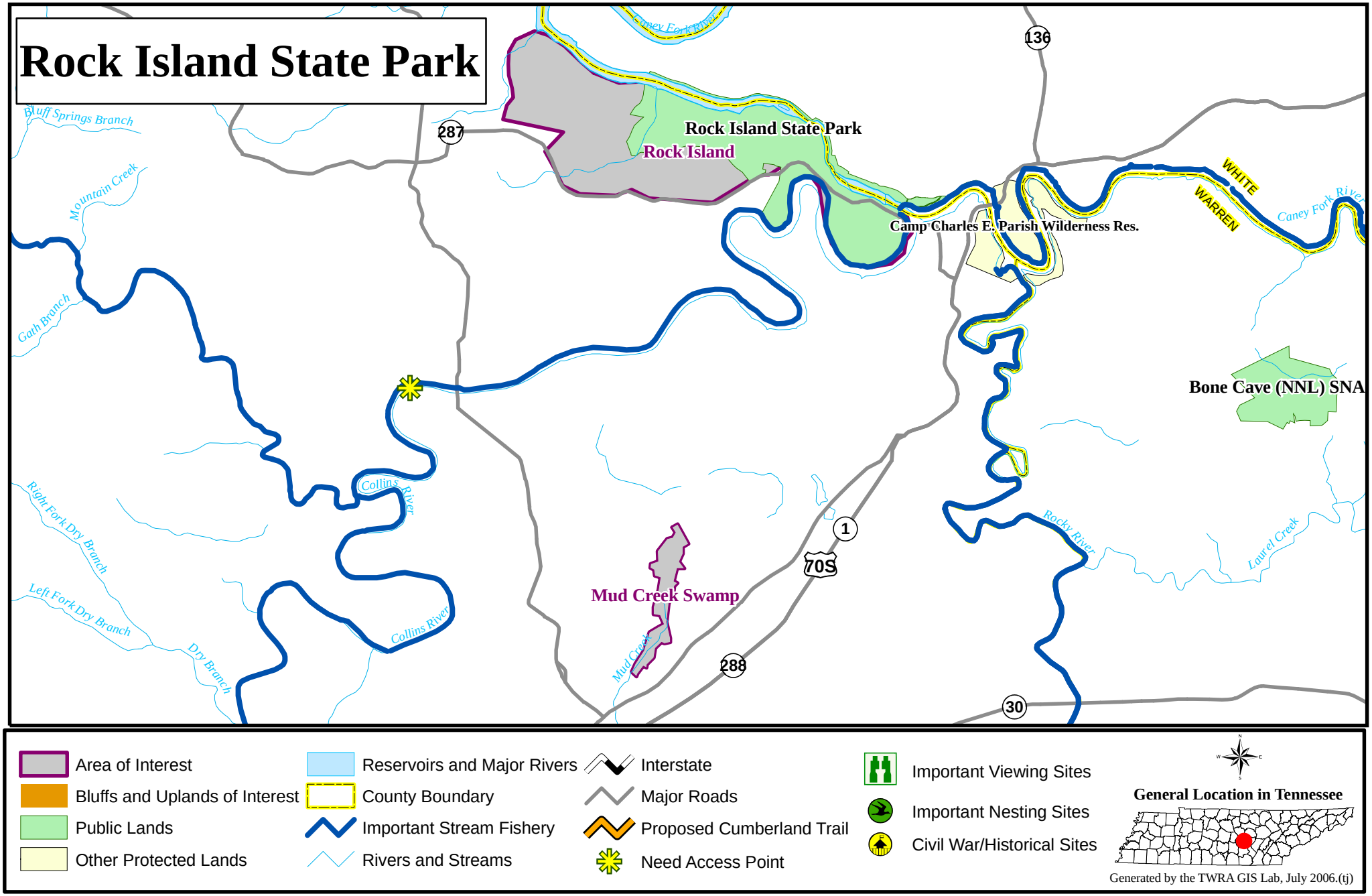
Significance - Rock Island State Park is noted for water and water related activities and contains 883 acres. Rock Island was named for an island in the Caney Fork River. A textile mill operated here in the 1890's. In 1917 a hydroelectric plant was built by the Tennessee Electric Power Company just downstream fromt eh Caney Fork and Collins Rivers, creating Great Falls Lake. The plant's village and Rock Island thrived during this time, for employees and as a resort. The community water supply, resembling a castle, is now a charming park feature. The Tennessee Valley Authority took over operations in the 1940's, and in 1966 leased land to the State of Tennessee for park development.

The park includes cabins, campground, fishing, picnic areas, hiking, swimming and boating.

Strategy - The strategy for future acquisitions for Rock Island State Park is to acquire in holdings and properties surrounding the park for watershed protection and properties that contain representative forest cover that further the wildlife, aesthetics, interpretive and recreation missions of Rock Island State Park.

Land Protection Needs – 792 acres at an estimated cost of $4,200,000

Potential Partners – TCF, TNC, and TDEC.


Rock Island State Park
Caney Fork River
136
Bluff Springs Branch
287
Rock Island State Park
Rock Island
Mountain Creek
Camp Charles E. Parish Wilderness Res.
WHITE
WARREN
Caney Fork River
Gath Branch
Bone Cave (NNL) SNA
Collins River
Right Fork Dry Branch
Rocky River
Laurel Creek
1
70S
Mud Creek Swamp
Left Fork Dry Branch
Collins River
Dry Branch
Mud Creek
288
30
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
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Major Roads
Proposed Cumberland Trail
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Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
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RUGBY SNA

Location – (N36.3481, W84.7084) Morgan County, The Rugby site is located in Morgan County near the historic town of Rugby on Highway 52, near the junction of Morgan, Scott, and Fentress Counties.

Description – The Rugby project area is located along the southern boundary of Historic Rugby and includes the watershed of Little Creek (and several tributaries) from its headwaters to its confluence with White Oak Creek. The Rugby project area is contiguous with the Big South Fork National River and Recreation Area, and several pending TNC Forest Legacy projects. The area in predominantly forested, though the majority of it has been cut over in recent times. Approximately 323 acres are owned and managed by TDEC as a SNA.

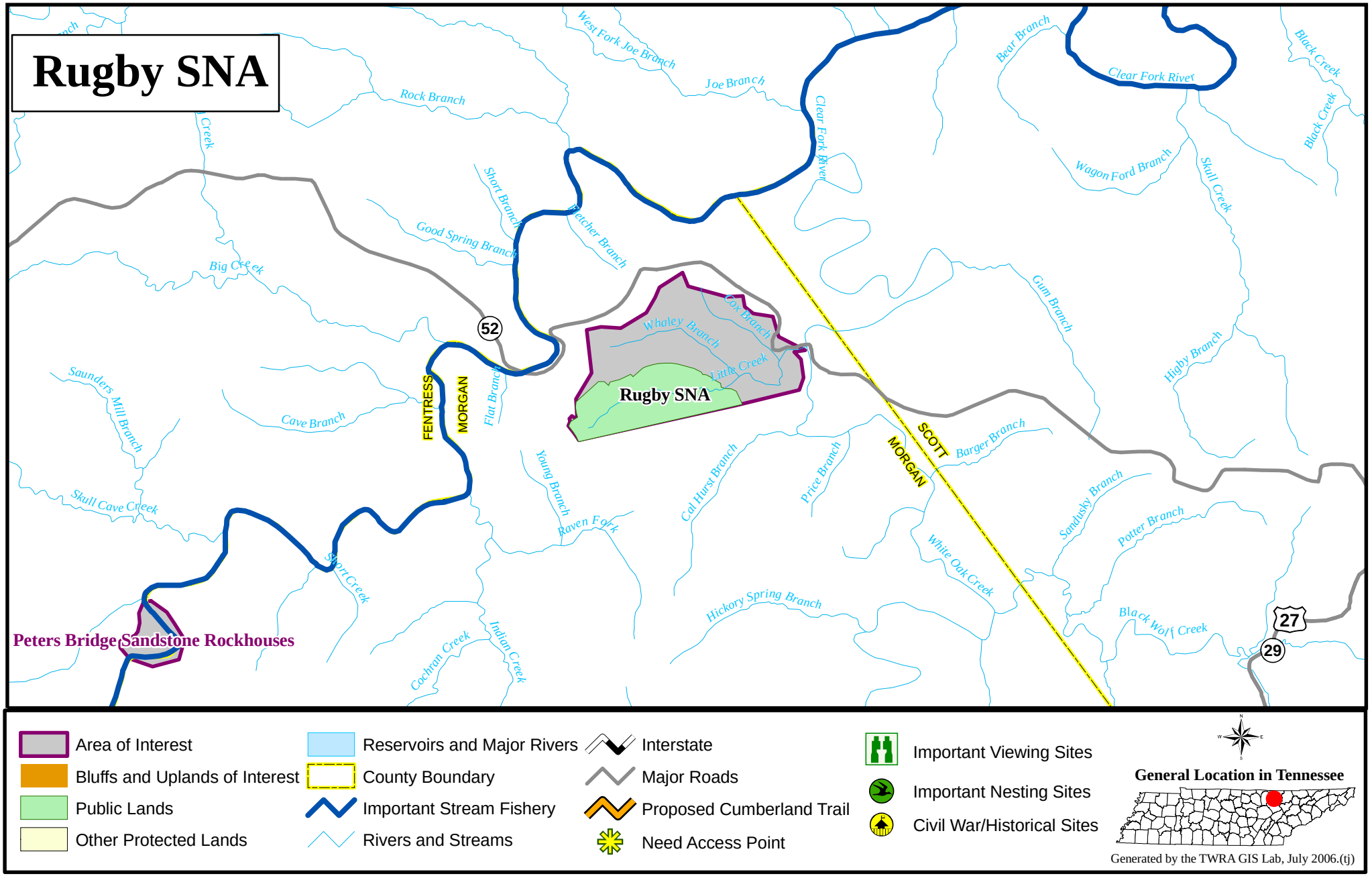
Significance – Site Importance General Interest (B5) - The Rugby project area's significance is derived from its locational setting as it is contiguous with the Big South Fork National River and Recreation Area, two Forest Legacy projects, and the town of Historic Rugby. This brings together interests and values that are both natural and cultural resources related. Through Historic Rugby, Inc., it also involves a vested and dedicated non-governmental partner. This local partnership can help ensure that this project has local support and oversight.

By preserving from conversion and development a significant amount of acreage immediately adjacent to Historic Rugby (a National Historic District) and the Big South Fork National River and Recreation Area, this project can play a critical role in preserving the integrity of these two areas. Additionally, the project will provide for passive outdoor recreation opportunities through public access to the watershed of Little Creek.

Botanical and floristic inventory data is limited and will be added to as additional site visits are made.

Land Protection Needs - 638 acres at an estimated cost of $715,000.

Potential Partners – TNC, TDEC, TDF-Forest Legacy Program, TWRA, Historic Rugby, Inc., and TDOT.


Rugby SNA
West Fork Joe Branch
Joe Branch
Rock Branch
Bear Branch
Clear Fork River
Black Creek
Wagon Ford Branch
Skull Creek
Clear Fork River
Short Branch
Fletcher Branch
Good Spring Branch
Big Creek
52
Whaley Branch
Cox Branch
Little Creek
Rugby SNA
Gum Branch
Higby Branch
Saunders Mill Branch
Cave Branch
FENTRESS
MORGAN
Flat Branch
SCOTT
MORGAN
Barger Branch
Young Branch
Raven Fork
Cal Hurst Branch
Price Branch
Sandusky Branch
Potter Branch
Skull Cave Creek
Sport Creek
White Oak Creek
Hickory Spring Branch
Black Wolf Creek
27
29
Peters Bridge Sandstone Rockhouses
Cochran Creek
Indian Creek
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

RUMBLING FALLS CAVE SYSTEM

Location –(N35.7513, W85.4317) Rumbling Falls Cave is in Van Buren County adjacent to Highway 30, approximately 3.0 miles east of the intersection of Hwy 111 in Spencer.

Description – The Rumbling Falls Cave System consists of three caves: Rumbling Falls, Thunder Run, and Swamp Spring Caves, all three of which are hydrologically connected. The openings for Swamp Spring Cave and Thunder Run Cave are at the base of Spencer Mountain and the Rumbling Falls Cave mouth is located on Fall Creek Falls State Park. Rumbling Falls Cave is famous for its "Rumble Room," a five-acre room with a 200' ceiling (larger than any single room at Mammoth Cave, Kentucky). Several swallets in nearby Dry Fork Creek communicate with phreatic (ground water) passages in this cave system.

The current site design includes over 10,000 acres in order to capture the recharge and discharge area from this system. The cave system has been recognized as a priority cave conservation site of national significance.

Significance – Site Importance Outstanding (B1) - Aside from the significance of the "Rumble Room," which alone is a magnificent feature, the biological significance of the Rumbling Falls Cave System cannot be overstated. Currently, there are 34 rare species known from the caves, many of which are considered extremely rare and critically imperiled at the global level (G1).

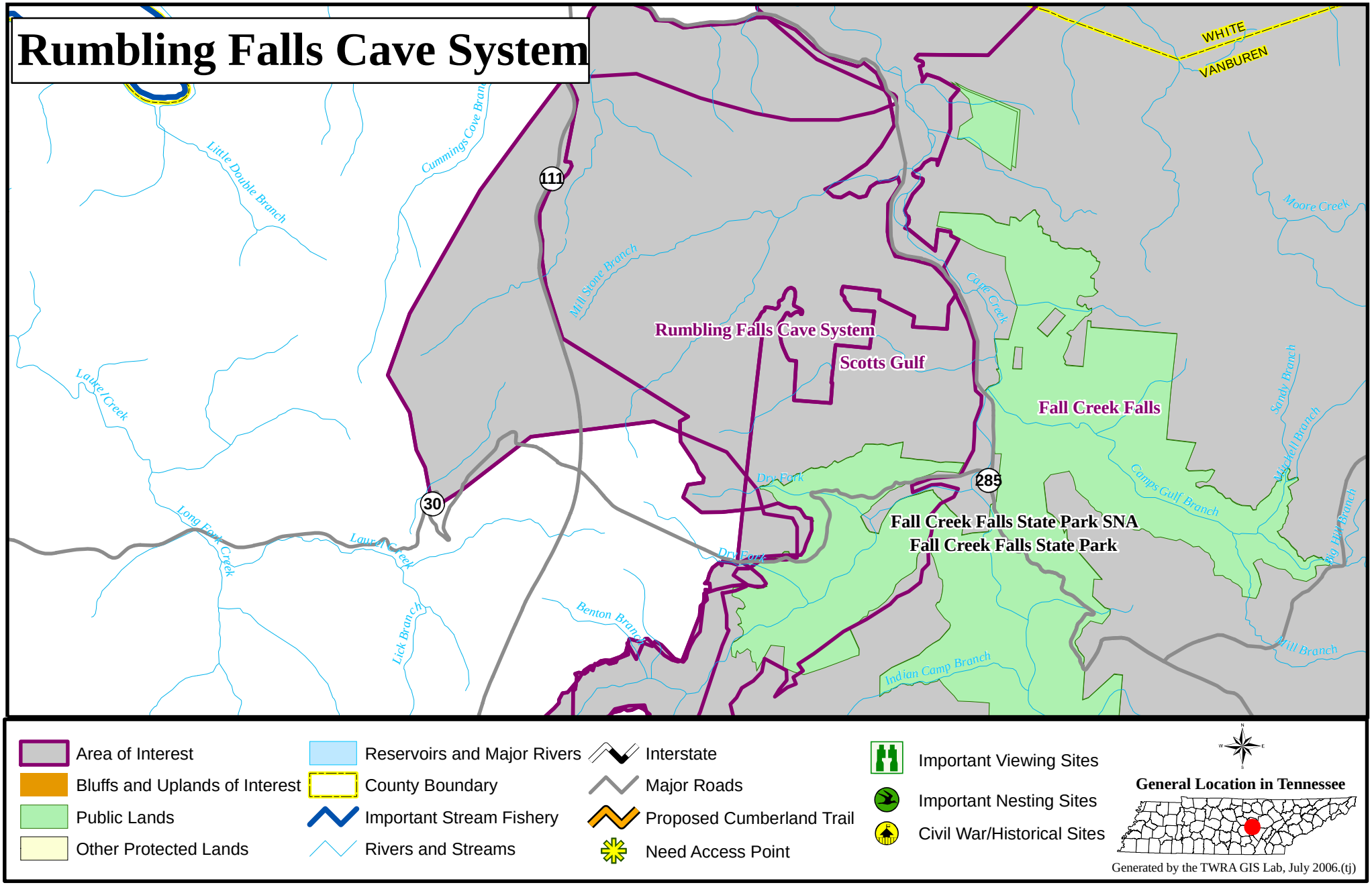
Some of these rare species are not known from any location other than Rumbling Falls, and experts have identified eight new species from this system (Lewis, 2001). A majority of the cave-dwelling rare species are invertebrates such as springtails, copepods, beetles, millipedes, crickets, ostracods, crayfish, spiders, and amphipods.

Strategy – The Rumbling Falls Cave entrance occurs on Fall Creek Falls State Park and SNA and the Rumble Room occurs below state-owned property. However, considering the numerous globally rare species-and the fact that little is known about their ecology or sensitivity – protection of the recharge and discharge area is needed to ensure their conservation. The recharge area includes lands formerly owned by Huber Timber Corporation and this large-primarily forested area-would either make a sizable addition to Fall Creek Falls State Park, or a future TWRA WMA.

Land Protection Needs - 8,847 acres at an estimated cost of $6,300,000.

Potential Partners – TWRA, TNC, TDA, and TDEC.

References – Lewis, Julian J. 2001. A biological reconnaissance of the Rumbling Falls Cave System, Van Buren County, Tennessee. J. Lewis & Associates, Clarksville, Indiana. 21 pp.


Rumbling Falls Cave System
WHITE
VANBUREN
Little Double Branch
Cummings Cove Branch
111
Mill Stone Branch
Rumbling Falls Cave System
Scotts Gulf
Cane Creek
Moore Creek
Fall Creek Falls
Sandy Branch
Laurel Creek
Dry Fork
285
Camps Gulf Branch
Mitchell Branch
30
Long Fork Creek
Laurel Creek
Fall Creek Falls State Park SNA
Fall Creek Falls State Park
Dry Fork
Big Hill Branch
Benton Branch
Lick Branch
Indian Camp Branch
Mill Branch
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

SAVAGE GULF SNA AND COLLINS STATE SCENIC RIVER

Location – (N35.4505, W85.5964 and N35.4323, W85.6051, respectively) The Collins River watershed includes parts of Cannon, Coffee, Grundy, Sequatchie and Warren Counties and drains 804 square miles before emptying into the Caney Fork River. Approximately 6.6 miles of the Collins River within Savage Gulf SNA in Grundy County is designated as a Class II State Scenic River.

Savage Gulf SNA - The geology of Savage Gulf area has set the stage for its rugged beauty, steep sandstone cliffs and lush, inaccessible canyon. Sandstone outcroppings over 250 feet thick contain fossils of shellfish, algae and microscopic organisms. Geologists estimate sediments extend nearly a mile deep below the area and were some 800 million years in the making. The limestone outcroppings lower in the gulfs are estimated to be nearly 350 million years old, and the three major creeks in the area disappear into sinks within this strata during most of the year. Tree species typical of the mixed mesophytic forest found in abundance at Savage Gulf include beech, poplar, basswood, maple, buckeye, hickory, oak, chestnut sprouts, and hemlock. Beneath the forest canopy is a vast array of shrubs, vines, wildflowers, mosses, and ferns which rival the flora of the Great Smokey Mountains in number and variety.

Savage Gulf SNA is a 15,590 acre botanical museum piece that is an example of the greatest diversity in temperate forests in North America, and is a baseline for evaluating adjacent disturbed but otherwise similar areas. Its organisms contain a gene pool that could become a major medical, economic, or other importance in future times. Enjoyment of its beauty and diverse landscapes may lead to development of a "land ethic" attitude among its visitors, helping to insure that this legacy will pass onto future generations. The gulf's genetic diversity includes such endangered species as false hellebore (*Veratrum woodii*) and white fringeless orchid (*Plantanthera integrilabia*). The Savage Gulf SNA is an officially recognized National Natural Landmark. The Stageroad, built with slave labor, is within the gulf and is on the National Register of Historic Places.

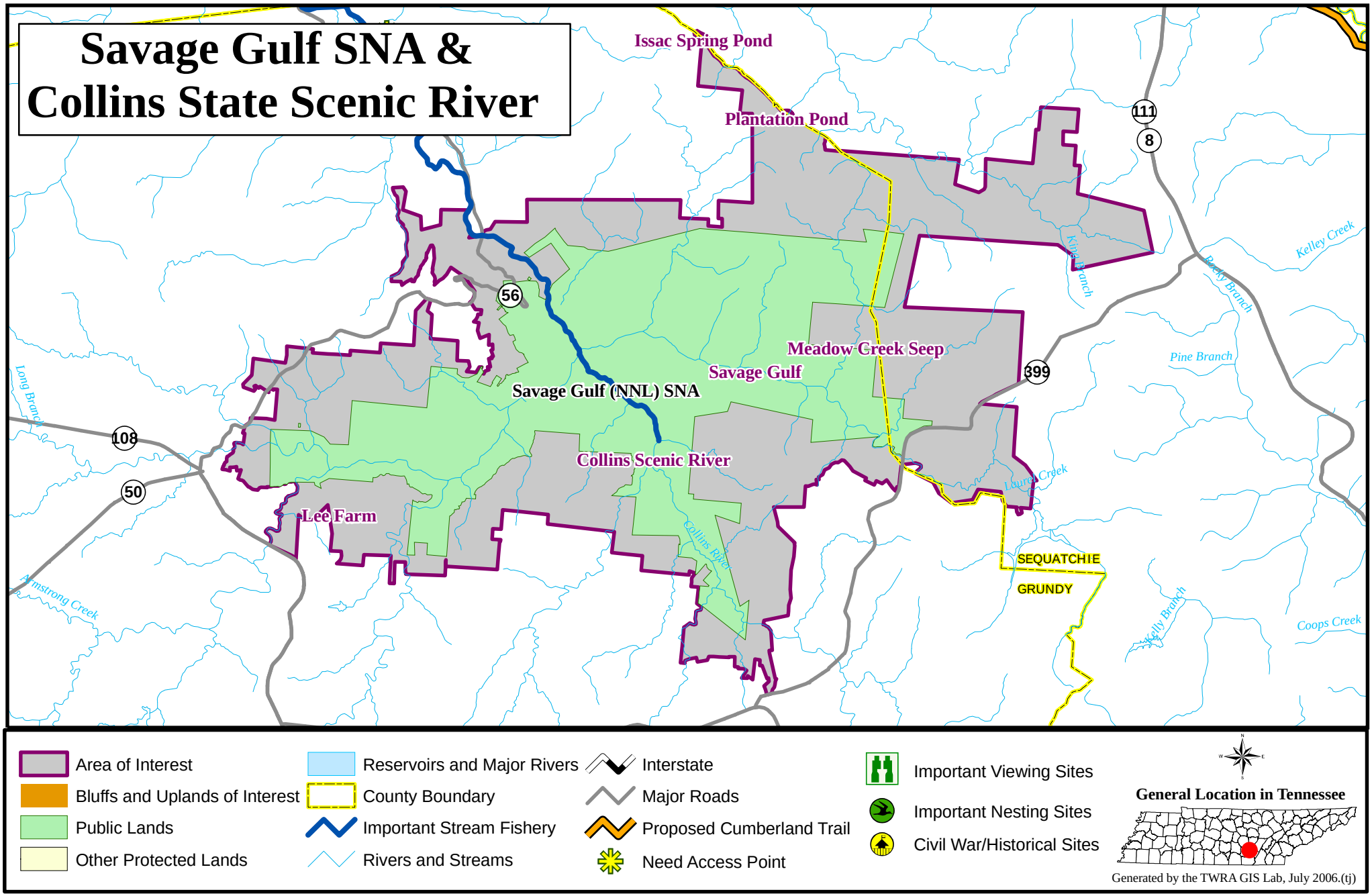
Collins State Scenic River - At a length of five miles each, the Big Creek, Collins River and Savage Creeks tumble down over 800 feet in elevation through narrow gorges, locally known as "Gulfs." Rimmed by sheer sandstone cliffs, the rugged canyons offer the hardy visitor a fine glimpse of the true wilderness still remaining in our State's midsection. All of the larger streams flow underground before reaching their mouths, making dry streambeds a common feature. But during periods of heavy rainfall, these streams can become swift and treacherous torrents, so flash flooding is a very real danger. At the heads of the gorges the streams drop off the hard caprock in breathtaking waterfalls. Collins River and Ranger Creek have disappearing waterfalls and associated karst features. Deep in the gorges, these streams drop over limestone ledges and flow into sinks. Logging has occurred in most sections of the gorges, but the forests are recovering rapidly. A diverse display of wildflowers blankets the gorge slopes in the early spring. This headwater-type river contains stocked populations of both brown and rainbow trout and a variety of other cooler-water species. The upper section of the Collins River epitomizes the typical rugged Cumberland Plateau stream and its associated geological features.

The Collins State Scenic River contains populations of rare fish, mollusks, amphibians, and plants of state and federal concern. According to a TNC/NatureServe publication entitled, "Rivers of life: Critical Watersheds for Protecting Freshwater Biodiversity," the Collins River is listed among the US watershed hot spots with 10 or more at-risk imperiled aquatic species, with 11 at risk fish and mussel species including four listed by the USFWS. It also flows through and is entirely contained within Savage Gulf SNA. A 1998 Tennessee River Assessment Report found that the rivers natural and scenic qualities were of local to statewide significance, recreational boating was of regional significance, its fishery was excellent, and its water quality was fully supporting its designated uses.

Strategy - The strategy for future acquisitions to SGSRA is to acquire in-holdings, properties surrounding the park for access or access control, watershed protection, view-shed protection and properties that contain representative forest cover types of the Cumberland Plateau, escarpment and gorges, that further the wildlife, aesthetics, interpretive, and recreation missions of the State Park System. The site conservation plan for the Collins State Scenic River follows the guidelines of the State Scenic River Act and identifies a corridor of no more than 450 feet from the usual banks of the river on each side. Identifying additional reaches of the Collins River to add to the scenic river, and connecting contiguous protected areas to state and other publicly owned lands along the entire river corridor are a major approach toward protecting the Collins River and making it a scenic greenway. Methods for conserving these areas are by fee title purchases, conservation easements, landowner assistance programs, and conservation buyers. Public and private partnerships are key to protecting and maintaining this relatively unspoiled river. Acquisition of key tracts for public access and use will be strategically targeted.

Land Protection Needs – 20,777 acres in Savage Gulf at an estimated cost of $14,500,000; 500 acres along the Collins River at an estimated cost of $500,000.

Potential Partners - The Friends of South Cumberland State Recreation Area, TNC, The Land And Water Conservation Fund, TCF, USFWS, USACE, and county governments


Savage Gulf SNA &
Collins State Scenic River
Issac Spring Pond
Plantation Pond
Meadow Creek Seep
Savage Gulf
Savage Gulf (NNL) SNA
Collins Scenic River
Lee Farm
56
111
8
399
108
50
SEQUATCHIE
GRUNDY
Kelley Creek
Pine Branch
Long Branch
Armstrong Creek
Coops Creek
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

SCOTTS GULF

Location – (N35.7744, W85.3283) Scott's Gulf is a very large project area. It includes the subprojects of Fall Creek Falls, Bledsoe Forest, and Bridgestone/Firestone Centennial Wilderness WMA, Virgin Falls, Lost Creek Cave, Camps Gulf Cave, Rumbling Falls Caves, and the Upper Caney Fork Gorge. It is located fifteen to twenty miles southeast of Sparta, in White and Van Buren Counties.

Description – The topography of this area includes very steep gorge-like drainages characteristic of several tributaries to the Caney Fork River. The tops of the Plateau surrounding the Gulf are relatively flat to rolling hills. Due to its topography, much of the area remains in oak/hickory and cove hardwood forest. The gorges of the upper Caney Fork River have been recognized for their scenic quality by many outdoor organizations.

Significance – This is yet another significant area of the Cumberland Plateau. Much of the threat to this area is due to its diversity, uniqueness, and its natural beauty. This general region boasts numerous waterfalls, caves, scenic vistas and tranquil retreats found in few other places.

As with other Plateau areas, this region is home to numerous imperiled species. There is an extensive cave system in the area, some of it unexplored, which provides habitat for several unique and imperiled cave organisms including the Indiana bat gray bat, eastern big-eared bat, and eastern small-footed bat. Also inhabiting the karst areas of the region are southern cavefish and numerous troglobitic invertebrates.

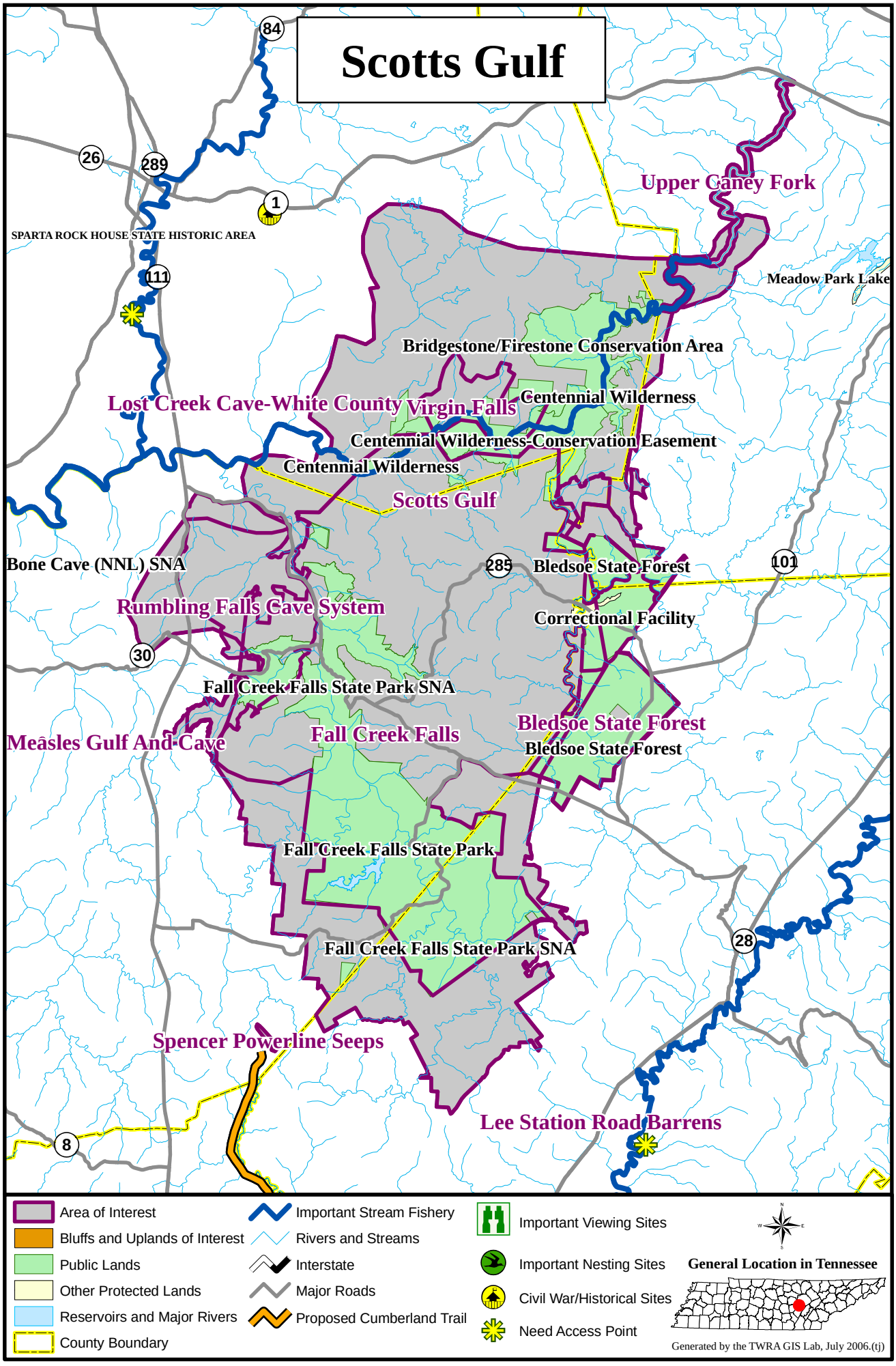
Aquatic and cave dwelling rare species are found in the Scotts Gulf area. Endemic species include two rare fish and one freshwater mussel. The state listed bedrock shiner and federally listed jewell darter and Cumberland pigtoe mussel are found in the headwaters of the Cumberland River system and nowhere else in the world.

Numerous species of neo-tropical birds that are in decline are found in this area including several species of warblers, Louisiana waterthrush, yellowbreasted chat, wood thrush. Peregrine falcons have been observed in the area and the cliffs along the gorge region may hold promise for the eventual establishment of a nesting population in the area.

In addition to the unique fauna of the area, there are several plant species in the area that are of concern including Cumberland rosemary and netted chain fern.

Lands protection needs – 29,506 acres at an estimated cost of $22,238,700.

Potential Partners – Several entities have already been active in the protection of land in the project area including TWRA, TDA, TDEC, TNC, and Bridgestone Firestone Trust. These same entities likely will continue to partner in further protection this area.


Scotts Gulf
84
26
289
1
SPARTA ROCK HOUSE STATE HISTORIC AREA
111
Upper Caney Fork
Meadow Park Lake
Bridgestone/Firestone Conservation Area
Lost Creek Cave-White County Virgin Falls
Centennial Wilderness
Centennial Wilderness-Conservation Easement
Centennial Wilderness
Scotts Gulf
Bone Cave (NNL) SNA
285
Bledsoe State Forest
101
Rumbling Falls Cave System
Correctional Facility
30
Fall Creek Falls State Park SNA
Bledsoe State Forest
Meâsles Gulf And Cave
Fall Creek Falls
Bledsoe State Forest
Fall Creek Falls State Park
Fall Creek Falls State Park SNA
28
Spencer Powerline Seeps
Lee Station Road Barrens
8
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
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Important Nesting Sites
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General Location in Tennessee
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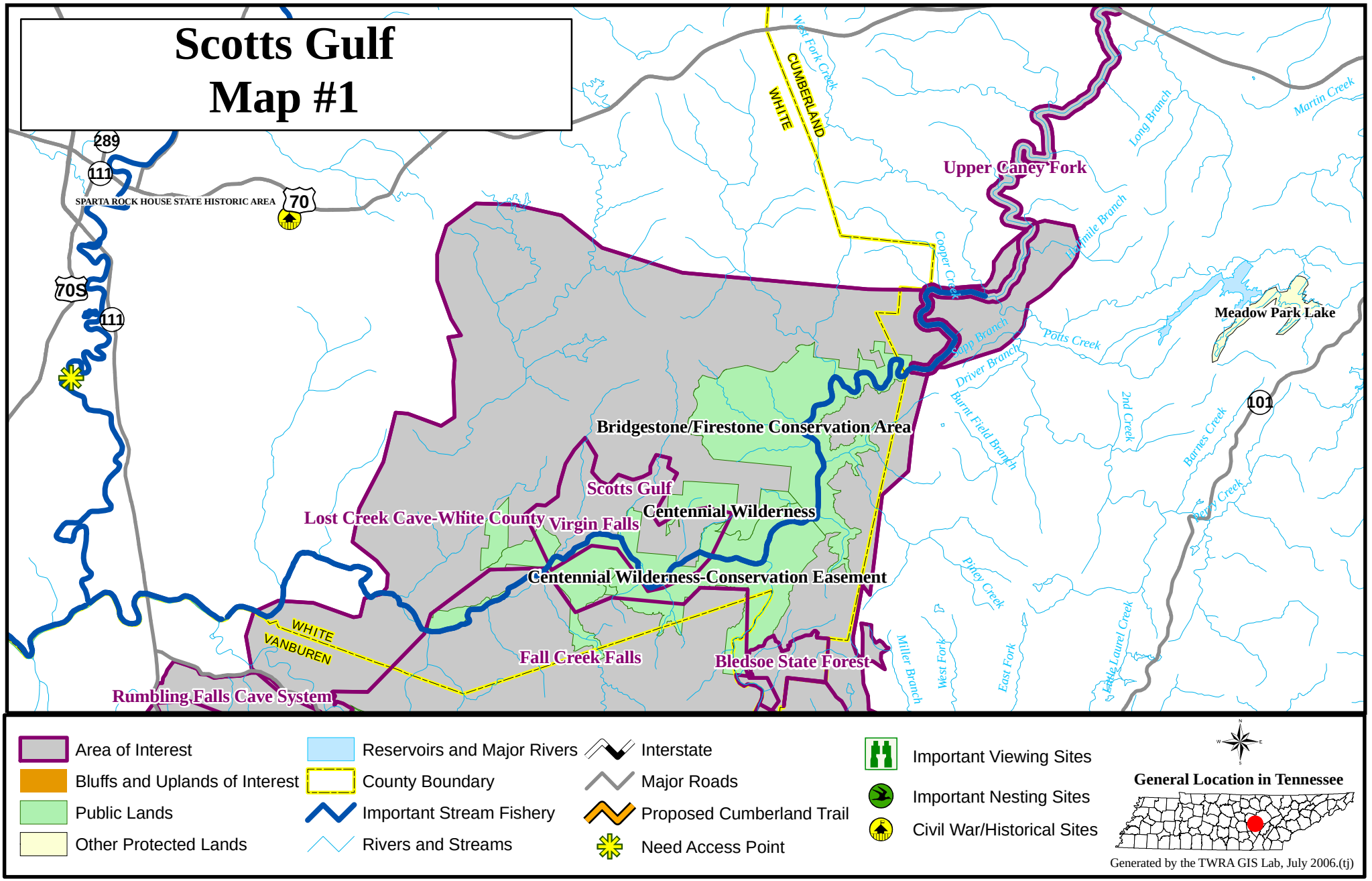
Scotts Gulf
Map #1
289
111
SPARTA ROCK HOUSE STATE HISTORIC AREA
70
70S
111
WHITE
CUMBERLAND
West Fork Creek
Upper Caney Fork
Long Branch
Martin Creek
Cooper Creek
Hurricane Branch
Meadow Park Lake
Tapp Branch
Potts Creek
Driver Branch
Burnt Field Branch
2nd Creek
101
Barnes Creek
Perry Creek
Bridgestone/Firestone Conservation Area
Scotts Gulf
Centennial Wilderness
Lost Creek Cave-White County
Virgin Falls
Centennial Wilderness-Conservation Easement
Putney Creek
WHITE
VANBUREN
Fall Creek Falls
Bledsoe State Forest
Miller Branch
West Fork
East Fork
Little Laurel Creek
Rumbling Falls Cave System
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
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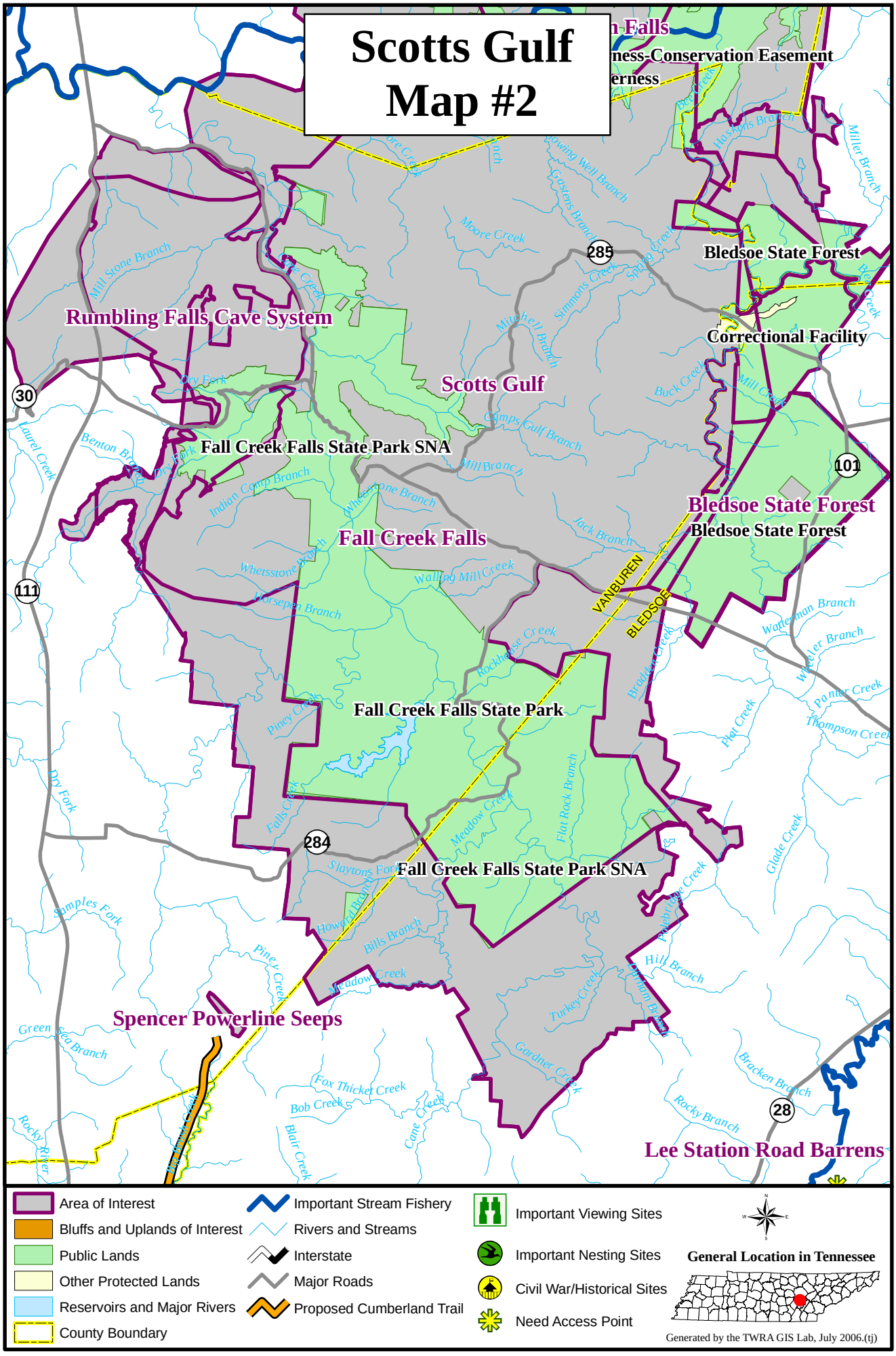
Scotts Gulf
Map #2
Rumbling Falls Cave System
Scotts Gulf
Fall Creek Falls State Park SNA
Fall Creek Falls
Fall Creek Falls State Park
Fall Creek Falls State Park SNA
Spencer Powerline Seeps
Lee Station Road Barrens
Bledsoe State Forest
Correctional Facility
Bledsoe State Forest
Bledsoe State Forest
Ness-Conservation Easement
erness
285
30
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284
28
101
VANBUREN
BLEDSOE
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
Need Access Point
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

SEQUATCHIE CAVE SNA

Location - (N35.1200, W85.5939) Sequatchie Cave is an eight acre SNA located in Marion County in the Sequatchie Valley about five miles north of Jasper. The site is accessed via Valley View Road by turning on Park Street in the community of Sequatchie.
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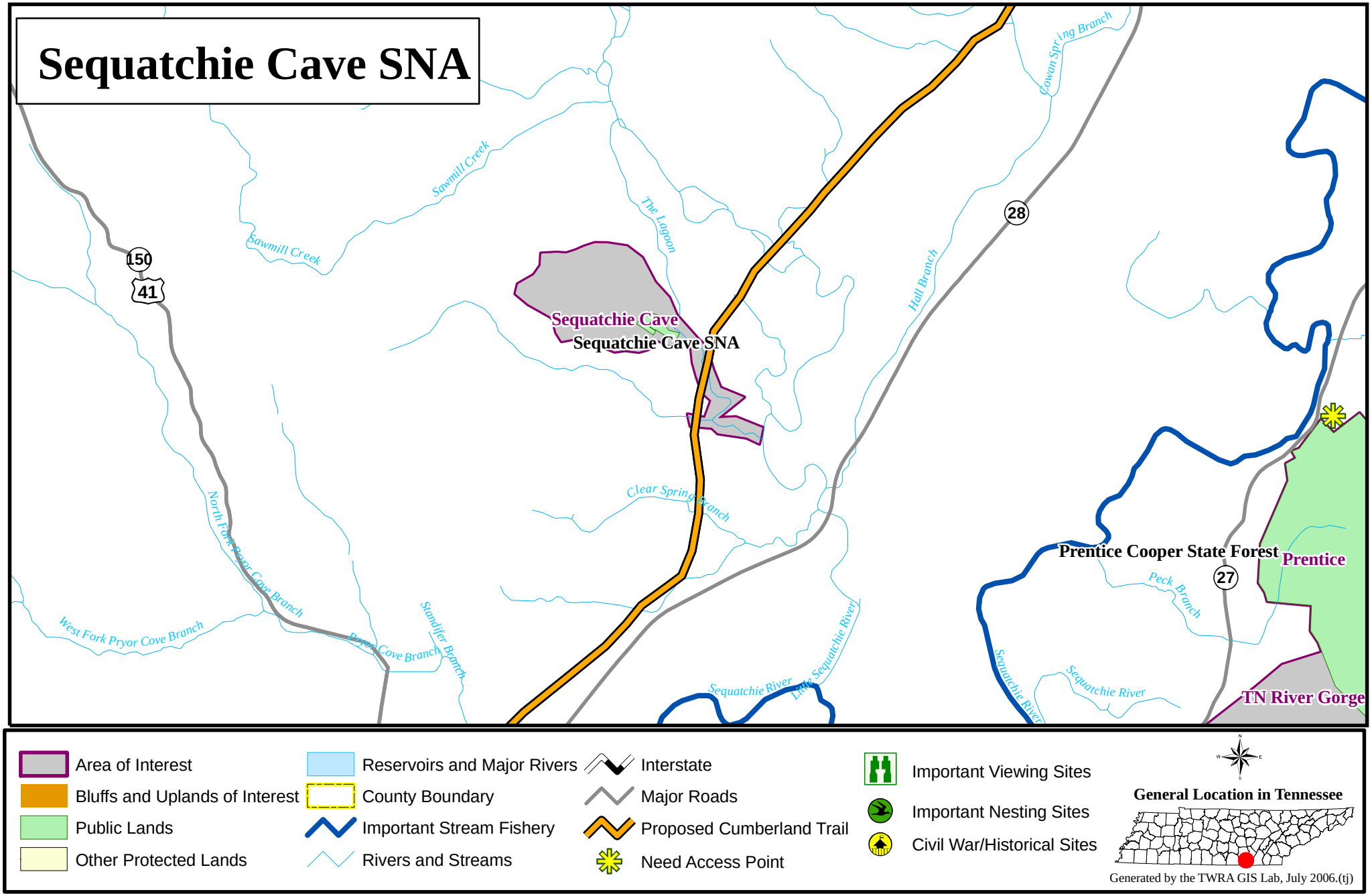
Description - This is a biologically significant area located where Owen Spring Branch flows from the mouth of Sequatchie cave. The site is a former TDOT roadside park. It was renamed "Sequatchie Cave Park" in 1999 and is managed by the Marion County Highway Department on behalf of the Marion County Conservation Committee. The water supply at Owen Spring is, in part, why this area was first settled.

Significance - The mix of ecological, cultural, and historical values makes Sequatchie Cave a unique area. The cave and its cold spring water support three federally and state listed species, three species of state concern, and many other aquatic and cave inhabitants. This is one of only two sites where the federally endangered royal snail (*Pyrgulopsis ogmorphaphe*) is known to occur in the entire world. Both are in Marion County. This is also the site where the rare cadisfly (*Glyphopsyche sequatchie*) was first described, making it the type locality for this species.

Strategy - The conservation site design for this natural area proposes to increase its acreage to 346 in order to protect as much of the recharge area that is presently known and protect suitable habit downstream from the existing boundary to enhance the conservation of the rare species that occur here.

Land Protection Needs – 338 acres at an estimated cost of $275,000

Potential Partners - Marion County Government, Marion County Conservation Committee, USFWS, and TDEC.


Sequatchie Cave SNA
Sawmill Creek
Sawmill Creek
The Lagoon
Cowan Spring Branch
Hall Branch
28
150
41
Sequatchie Cave
Sequatchie Cave SNA
Clear Spring Branch
North Fork Pryor Cove Branch
West Fork Pryor Cove Branch
Pryor Cove Branch
Standifer Branch
Sequatchie River
Little Sequatchie River
Prentice Cooper State Forest
Prentice
Peck Branch
27
Sequatchie River
Sequatchie River
TN River Gorge
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
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Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
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Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
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SHERWOOD ESCARPMENT

Location - (N35.0817, W85.9058) Sherwood Escarpment in Franklin County is centered immediately east of the town of Sherwood, and includes the escarpment of the Cumberland Plateau from approximately one mile north of Sherwood to one mile southeast of the town center. The site lies east of Hwy 56 and south of the CCC Road, and north of Sherwood School. (See Carter Mountain map)

Description - The primary feature of Sherwood Escarpment is Youngs Creek Cove, a gulf containing approximately three miles of Cumberland Plateau escarpment. An additional ½-mile portion of the site north of Sherwood faces the Crow Creek Valley proper. Elevations at the site range from 700 feet to 1700 feet. Above approximately 1350 feet the site contains a mixed oak hardwood forest dominated by various oaks and including white ash and shagbark hickory as associated species. Soils above this elevation are largely sandstone-derived, and sandstone outcrops and rocks are found sporadically. Below approximately 1350 feet the site is largely defined by Monteagle limestone, including minor cliffs, outcrops, boulders, and rocks. Soils are limestone-influenced and this is reflected in the plant community. The herb layer includes small-headed sunflower (*Helianthus microcephalus*), pale flowered polymnia (*Polymnia canadensis*), and scattered patches of Cumberland rosinweed (*Silphium brachiatum*). A generally richer flora is evident, with the overstory including species associated with more mesic forests (sugar maple, blue ash, basswood, etc.). A blue ash-giant cane community is present in parts of the site. Total acreage of Sherwood Escarpment is approximately 1250 acres.

Included in the site are the remnants of the former Gager Mine Company, a limestone mining operation that ceased operations circa 1949. The escarpment portion of the mine includes a large level working area carved out from the mountain, and an extensive series of tunnels (portals) from which high quality lime was previously mined. Mined areas exist both beneath and adjacent to the working area. The site has been generally inactive since the closure of the Gager mine, though numerous attempts have been made to find other uses for the property (mushroom farming, alternative energy production, etc.). The Gager lands, which include the mine proper and an additional approximately 3,100 acres of escarpment and Cumberland Plateau, were purchased by an Ohio company in 2004 with the intent to operate a mine or gravel pit on the old mine site. Save for two relatively small parcels in the northwestern section of Sherwood Escarpment, the entire conservation site is owned by the Ohio company.

Significance - Site Importance Outstanding (B1) - Sherwood Escarpment contains the northernmost known population of the painted snake-coiled forest snail (*Anguispira picta*)(S1), a federally threatened and state endangered species. Approximately 30% of the known habitat of this species occurs within the site. This land snail is found on limestone outcrops and cliffs from approximately 750 to 1300 feet elevation. *A. picta* encircles the working area of the Gager mine, and has been observed just outside one of the lower portals. The species has been found at the base of spoil piles left from mining activities, and occurs in a cedar-blue ash forest immediately adjacent to the upper portals. The snail, however, has apparently not recolonized the open mine face, possibly because of insufficient forest cover or xeric conditions.

The state endangered Cumberland rosinweed (*Silphium brachiatum*, S2) also has been documented from Sherwood Escarpment, along with butternut (*Juglans cinerea*, S3, state threatened) and goldenseal (*Hydrastis canadensis*, S3, state special concern).

Strategy - At the present time all known occurrences of *A. picta* fall on private lands. The known range of the species includes approximately twelve miles of Cumberland Plateau escarpment, roughly half on each side of the upper Crow Creek Valley at Sherwood. The species is not reported elsewhere. The Sherwood Escarpment includes over 60% of the known range of the species on the east side of the Valley, or 30% of the total range of the species. If the entire Gager tract is considered, nearly 80% of the known *A. picta* population on the east side of the Valley is included. Acquisition of the Gager tract would secure a substantial population of the snail on public land. Additionally, portions of the Gager tract share a border with both Carter Caves SNA and Franklin-Marion State Forest.

At present the acreage immediately surrounding the mine has been rezoned for industrial use (approximately 300 acres). The balance of the land- and bulk of occupied snail habitat- remains in a natural state. If the current landowner is agreeable, this property should be acquired by the State and evaluated for potential as a SNA.

Land Protection Needs – 1,260 acres at an estimated cost of $1,300,000.

Potential Partners – TDEC, TNC, Land Trust for Tennessee, USFWS, TWRA, and TDA.

SLICKROCK BRANCH/PAINT ROCK CREEK

Location - (N36.3923, W84.4622) The approximately 30 acre site is located in Scott County approximately two miles southeast of Huntsville on an alluvial floodplain to the east of the Paint Rock Creek-New River Confluence on the north bank of New River. (See Upper Cumberlands map)

Description - The property consists of a broad sandy floodplain of the New River. The forest is an early successional hardwood forest. The New River is a characteristicly high gradient Cumberland Plateau river.

Significance - Site Importance High (B3) - The site design includes the largest known southern lady slipper (*Cypripedium kentuckiense*) population in Tennessee. The site has been termed the "mother lode" population. The southern lady slipper is state endangered and its existence is considered imperiled in the State meaning less then 20 populations are currently documented within Tennessee. Because of the rarity of the southern lady slipper and large size of the population, the site has a high biodiversity significance (B3).

Strategy - The strategy for acquisition at Slickrock Branch is to acquire properties within and adjacent to the site design (site boundary) for access or access control, watershed protection, and preservation rare species and representative communities. Preservation of these rare species and wildlife will provide educational opportunities for area colleges, universities, and the general public, and work toward preserving Tennessee's natural heritage.

Land Protection Needs - 17 acres at an estimated cost of $20,000.

Potential Partners - TNC, TDEC.

SPENCER POWERLINE SEEPS

Location - (N35.5841, W85.4196) The approximately 80 acres is located in Van Buren County approximately 10 miles south of Spencer off Hwy. (See Scotts Gulf map)

Description - The property consists of a series of seeps under TVA power lines, where it is crossed by an abandoned power line running NW to SE. This site is dominated by numerous rare wetland species. Excellent examples of dry barrens are also located on the site. Some plants typical of the site include switch grass, big bluestem, Maryland meadow beauty, and dense blazing star. The site has very high biodiversity significance (B2) due to the number and quality of rare plant populations and diversity of habitats.

Significance - Site Importance Very High (B2) - The site is an excellent example of native herbaceous communities of open wet and dry barrens and meadows. The site also includes an old abandoned farm pond which has become a significant refuge for a rare species of yellow eye grass. The abundance of rare plants known from the site range from those which are considered critically imperiled (S1 - less than 5 known occurrences), imperiled (S2 – less than 20 known occurrences), and those that are rare or uncommon (S3 – less than 100 occurrences).

Three state endangered orchids are known from the site: white fringeless orchid (*Platanthera integrilabia* – S2S3), yellow fringeless orchid (*Platanthera integra* – S1), and rose pogonia (*Pogonia ophioglossoides* – S2). It is important to note that the white fringeless orchid is a candidate for federal listing, meaning sufficient information exists on biological vulnerability of the species. Other state endangered plant species include few-flowered beak rush (*Rhynchospora rariflora* – S1) and coastal plain yellow-eyed grass (*Xyris ambigua* – S1), both of which are obligate wetland species. Several state threatened plants occur on site including Canada lily (*Lilium candense* – S3), zigzag bladderwort (*Utricularia subulata*- S1), and Canby's lobelia (*Lobelia canbyi* – S2S3). Low frostweed (*Helianthemum propinquum* – S1S2) is also known from the site and listed as special concern in Tennessee.

Strategy - The strategy for acquisition at Spencer Powerline Seeps is to acquire properties within and adjacent to the site design (site boundary) for access or access control, watershed protection, and preservation rare species and representative communities. Preservation of these rare species and wildlife, will provide educational opportunities for area colleges, universities, and the general public, and work toward preserving Tennessee's natural heritage.

Land Protection Needs - 78 acres at an estimated cost of $68,000.

Potential Partners - TNC, TWRA, and TDEC.

STANDING STONE STATE FOREST AND STATE PARK

Location – (N36.4602, W85.4206) Standing Stone State Forest is located just south of Dale Hollow Lake in Overton and Clay Counties. The State Forest lies just north of the community of Hilham and approximately ten miles south of the Kentucky state line. The area is accessible from Hwy 52, approximately 12 miles northwest of Livingston, and from Hwy 136 approximately 30 miles north of Cookeville.

Description - Standing Stone State Forest - (8,445 acres/3,418 ha)
This Forest had its beginning in lands purchased by the Resettlement Administration and deeded to the State in 1955. It became a State Forest in 1961. Most of the State Forest lies technically in the Eastern Highland Rim Physiographic Province. Recent investigation by Smalley (2004), doing landtype mapping, further described the forest location as a transition between the Eastern Highland Rim and Cumberland Plateau regions.

Ninety-eight percent of the land is in regulated forest and 89% is in upland hardwoods, 6.8% in pine, and 4% in mixed hardwood and pine. Thirty-four percent of the forest is in stands 80+ years old and 48% is in stands 50-80 years old, and only 18% is less than 50 years old. Standing Stone State Park is an in-holding to the forest.

Significance – Although Braun (1950) classified this area within the Western Mesophytic Forest region, she indicated that this dissected portion of the Eastern Highland Rim is essentially a part of the Mixed Mesophytic Forest region. One of the primary differences that Standing Stone has with the Mixed Mesophytic Forest is the dominance of beech - as opposed to hemlock - in the ravine slopes.

Recently, TDF contracted TDEC to complete a biological assessment of Standing Stone, "An Ecological Assessment of Standing Stone State Forest" (Withers and others, 2004). Several vertebrate and invertebrate rare animals have been recorded or observed on or in the proximity of Standing Stone. Prior to the survey, no rare plants had been documented on Standing Stone.

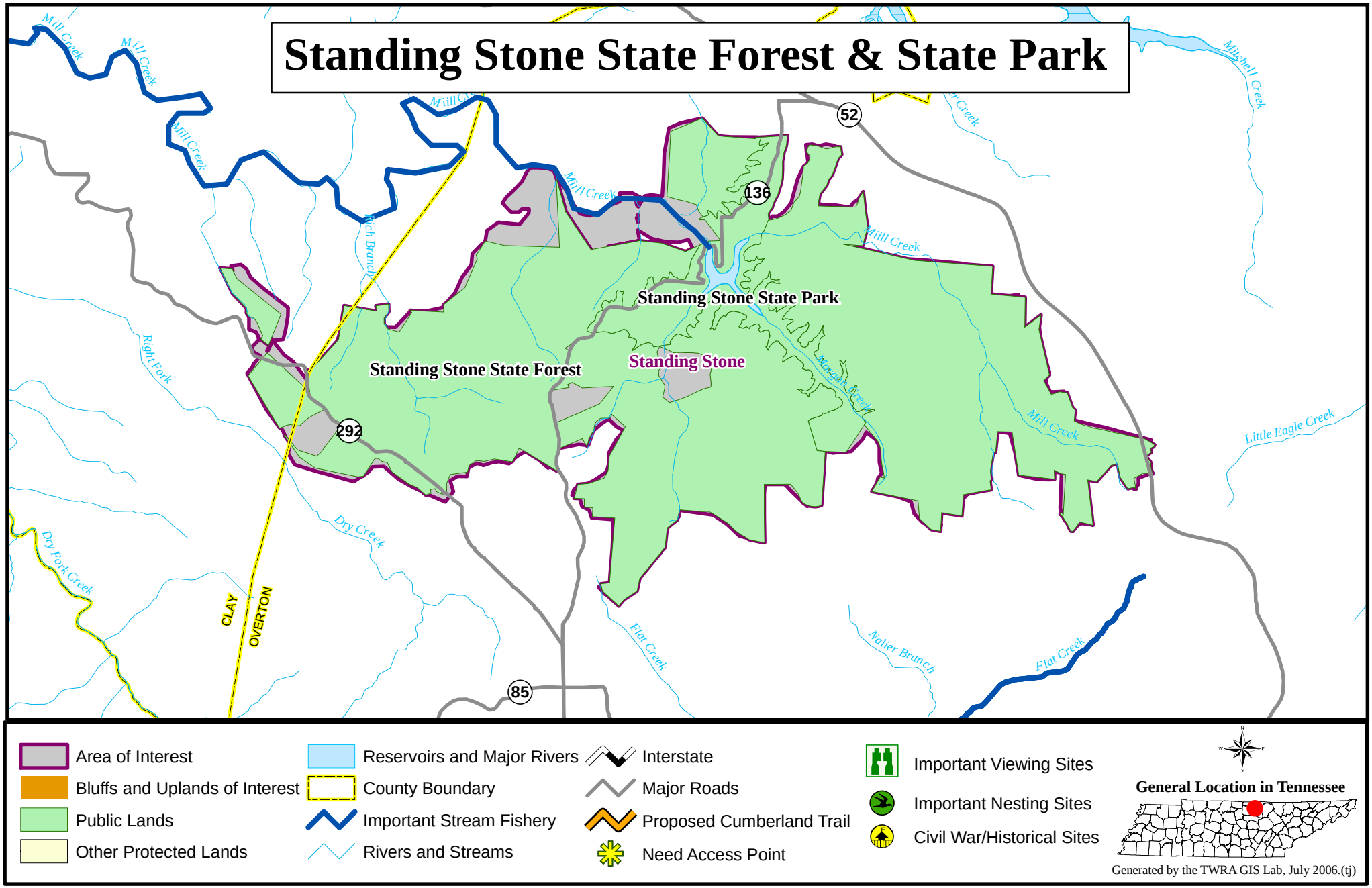
Recreationally, this area is served by Dale Hollow Lake and Standing Stone State Forest and Park. Hunting is a traditional activity on these State lands.

The Standing Stone name comes from a large rock monument in the vicinity of the forest that delineated traditional Indian hunting lands.

State Forest Strategy – Acquisition of in-holdings, for access and access control to the forest are the primary criteria for additions to the Forest.

Land Protection Needs – 695 acres at an estimated cost of $646,590

Potential Partners - TDA.


Standing Stone State Forest & State Park
Standing Stone State Park
Standing Stone State Forest
Standing Stone
Mill Creek
Mill Creek
Mill Creek
Mill Creek
Mill Creek
Mill Creek
Mill Creek
Mitchell Creek
Right Fork
Dry Creek
Dry Fork Creek
Morgan Branch
Little Eagle Creek
Flat Creek
Flat Creek
Nalier Branch
52
136
292
85
CLAY
OVERTON
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

TANAGER HILL

Location - (N36.1636, W85.3653) Tanager Hill is located in Putnam County about 5 miles east of Cookeville.

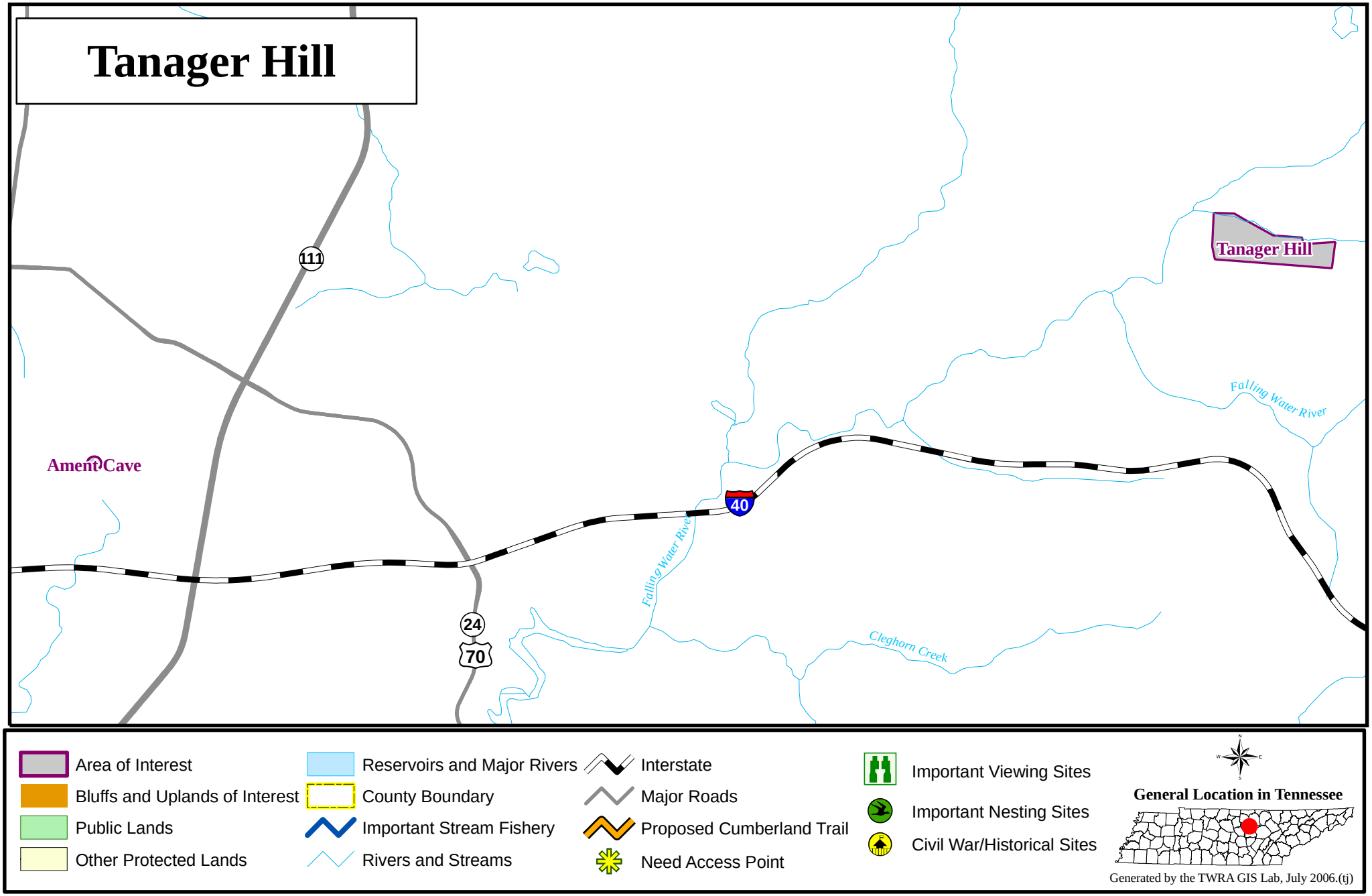
Description - Tanager Hill is the property of a naturalist in Cookeville. This area is an example of a private citizen's effort to acquire and protect a botanically significant piece of property. It is a 10 acre woodland dominated by a eastern red cedar community with other species such as persimmon, sourwood, dogwood, red maple, and tulip poplar also common.

Significance - Site Importance Moderate (B4) - Three species on the Tennessee rare plant list occur here. Each is considered as a species of special concern in Tennessee. The three rare species are the Alabama grapefern (*Botrychium alabamense*), oval ladies-tresses (*Spiranthes ovalis*) and running strawberry-bush (*Euonymus obovatus*). The population of Alabama grapefern is the largest known in Tennessee. This species has been reported from only four localities in Tennessee, but the only recently observed population is here. The difficulty in identifying this species, and the ease with which it can be overlooked, probably contributes to the few observations of this plant, but records of the DNA indicates that Alabama grapefern is a rare and disjunct plant in Tennessee.

Strategy - The protection of this area would be secured by the acquisition of the land or a donated conservation easement from the landowner. The total acreage of this project is 10 acres.

Land Protection Needs - 10 acres at an estimated cost of $13,000.

Potential Partners – TDEC.


Tanager Hill
Tanager Hill
111
Ament Cave
40
24
70
Falling Water River
Falling Water River
Cleghorn Creek
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

TENNESSEE RIVER GORGE

Location – (N35.0979, W85.4176) The Tennessee River Gorge is located in Hamilton and Marion Counties in southeast Tennessee immediately west of the city of Chattanooga. (See Cummings Cove map)

Description - The Tennessee River Gorge is a 27,000 acre river gorge carved through the Waldens Ridge prong of the Southern Cumberland Plateau. The gorge is 27 miles long, 1.5 - 2 miles wide and averages 1,800 feet deep. It is Tennessee's largest river canyon and east of the Mississippi is exceeded in size by only five other canyons. It is little developed and is almost entirely covered by unbroken mixed hardwood forests exceeding 80 years in age. Of the 27,000 acres within the Tennessee River Gorge, 16,344 have been protected by federal and state organizations as well as private organizations including 6,942 acres protected by the Tennessee River Gorge Trust.

Significance - As stated, The Tennessee River Gorge itself is little developed considering its proximity to Chattanooga and contains many rare, threatened and endangered species of plants and animals as well as significant habitats of Natural Area quality, such as the Cedar Mountain complex. Also represented are numerous karst features and cultural and historic sites representing Native American pre-history as well as numerous historic sites connected with the Cherokee removal, frontier history and the civil war. Williams Island at the head of the Gorge is on the national register of historic sites and is a state archaeological area. The gorge's biological diversity is so unique that it has been designated a Biosphere Reserve by the U.S. Man and the Biosphere Program of UNESCO. Rare, threatened and endangered species include: the large flowered skullcap (*Scutellaria montana*), the gyandotte beauty (*Synandra hispidula*), the Price's potato bean (*Apios priceana*), the rose gentian (*Sabatia Capitata*), the white fringeless orchid (*Plantanthrea integrilabia*), Indiana bat, bald eagle, osprey, snail darter, Anthony's river snail mussel, Cumberland monkeyface mussel, dromedary pearlymussel, fine-rayed pigtoe mussel, orange-foot pimpleback mussel, pink mucket perlymussel, rough pigtoe mussel, and royal marstonia mussel.

Strategy - The site conservation plan for the Tennessee River Gorge calls for the continued acquisition of private land for inclusion with the existing protected areas.

Land Protection Needs – 5,000 acres at an estimated cost of $5,800,000

Potential Partners - Baylor School, TDA, TDEC and USFS.

TIMS FORD STATE PARK

Location – (N35.2304, W86.2494) Franklin and Moore Counties

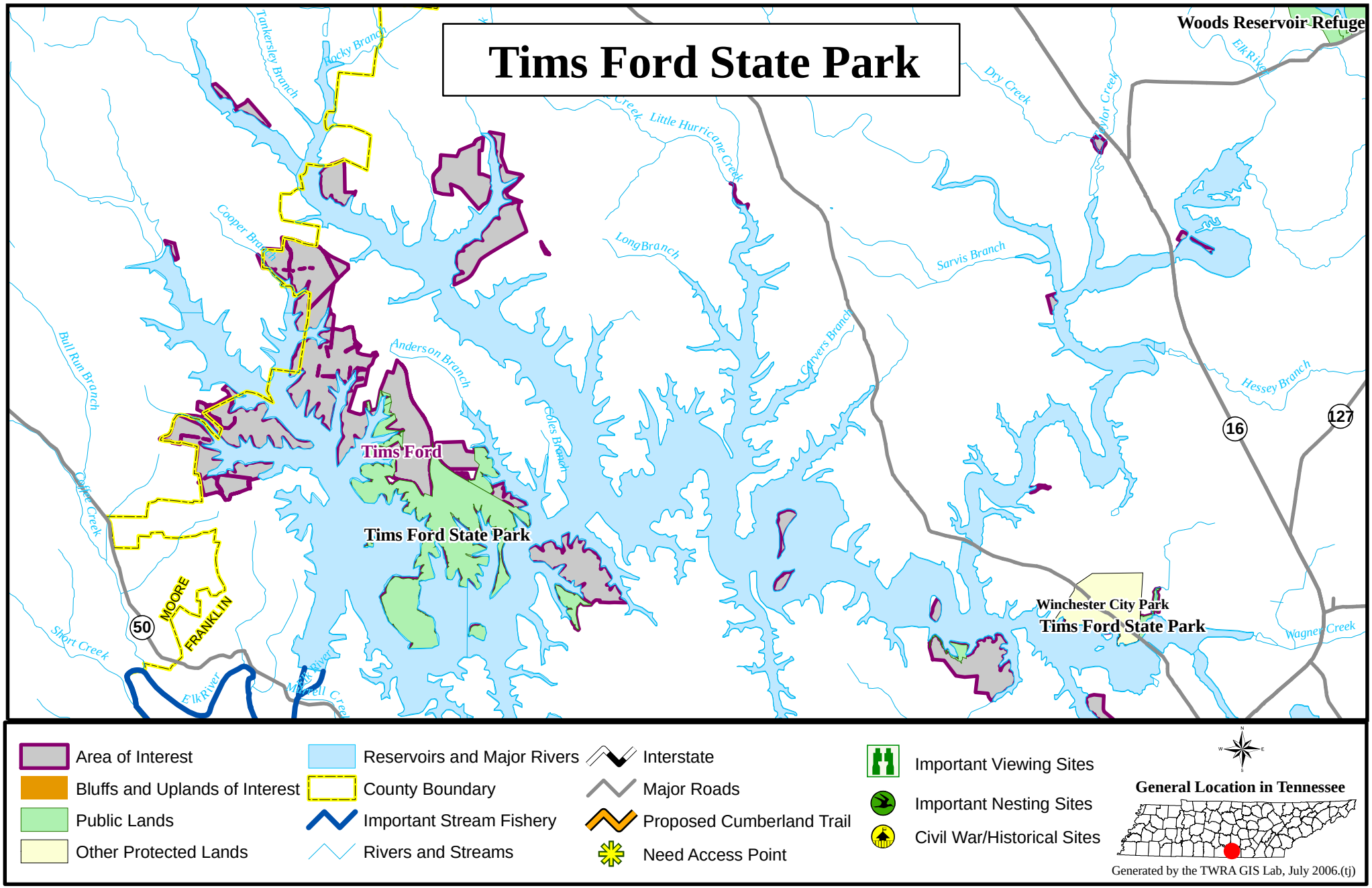
Description - Tims Ford State Park is located on the eastern edge of the Interior Plateau on the shore of the 10,680 acre Tims Ford Reservoir. The park currently contains 1,895 acres with another 53 acres to be transferred by TVA. Additional tracts that adjoin the park are critical to the proper and efficient management of the park.

Significance - Additional properties are necessary to ensure that optimum recreation opportunities are offered while still protecting the natural and cultural values of the park area.

Strategy - The strategy for future acquisitions to Tims Ford State Park is to acquire in-holdings, properties surrounding the park for access or access control or recreational development, watershed protection, view-shed protection and properties that contain representative forest cover types of the interior plateau that further the wildlife, aesthetics, interpretive, and recreation missions of the State Park System.

Land Protection Needs – 50 acres at an estimated cost of $800,000.

Potential Partners - TCF, TNC and TDEC.


Tims Ford State Park
Woods Reservoir Refuge
Tims Ford
Tims Ford State Park
Winchester City Park
Tims Ford State Park
MOORE
FRANKLIN
50
16
127
Tankersley Branch
Rocky Branch
Little Hurricane Creek
Dry Creek
Taylor Creek
Elk River
Cooper Branch
Long Branch
Sarvis Branch
Bull Run Branch
Anderson Branch
Carvers Branch
Coles Branch
Hessey Branch
Coffee Creek
Short Creek
Elk River
Mitchell Creek
Wagner Creek
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

TURKEY CREEK

Location - (N35.0144, W86.1182) This is land outside the TNC Walls of Jericho located on the Cumberland Plateau in Franklin County. It is located near Walls of Jericho off of Rowe Gap on Hwy 16. (See Carter Mountain map)

Description - The 311 acre area is adjacent to Walls of Jericho and is noted as a rich botanical and interesting geological area. It is on the western margin of the Cumberland Plateau and is a hollow with steep limestone slopes with a canopy cover of white oak, chinkapin oak, tulip tree, and beech.

Significance - Turkey Creek is significant for its rich plant diversity and rare species. It supports the globally rare limerock arrowwood (*Viburnum bracteatum*). It also other supports other rare species including Cumberland rosinweed (*Silphium brachiatum*), shining ladies-tresses (*Spiranthes lucida*), shadow-witch (*Ponthieva racemosa*), smooth false gromwell (*Onosmodium molle ssp. subsetosum*), and goldenseal (*Hydrastis canadensis*).

Strategy - The purpose is to acquire the Turkey Creek area adjacent to Walls of Jericho to protect the many rare species that occur there.

Land Protection Needs - 311 acres at an estimated cost of $300,000.

Potential Partners - TNC and TDEC.

UPPER CANEY FORK

Location – (N35.9247, W85.1933) This site consists of approximately 12.5 river miles of the Caney Fork River primarily in southwest Cumberland and White Counties from Hwy 70 downstream to the Bridgestone/Firestone Centennial Wilderness WMA. (See Scotts Gulf map)

Description – This 12.5 mile stretch of the Caney Fork River is typical of a large Cumberland Plateau stream. Much of the uplands in the area have been strip mined or converted to pine plantations. However, the water quality is fairly good. Protection of the riparian zone and buffer along this stretch of stream encompasses approximately 1,400 acres.

Significance – Site Importance Very High (B2) - This stretch of the Caney Fork River contains seven rare species including thirteen occurrences of Cumberland rosemary (*Conradina verticillata*), seven occurrences of Cumberland sandgrass (*Calamovilfa arcuata*), and five occurrences of the Caney Fork crayfish (*Cambarus pristinus*). Cumberland rosemary is federally and state threatened, and is considered very rare and local throughout its range globally (G3) and rare and uncommon within the state (S3) according Natural Heritage data. The Cumberland sandgrass is state endangered, and is considered very rare and imperiled globally (G2) and within the state (S2). The large-leaf pondweed (*Potamogeton amplifolius*) is state threatened, and is considered demonstrably secure globally (G5) but extremely rare and critically imperiled within the state (S1). The Canada lily (*Lilium canadense*) is state threatened, and is considered demonstrably secure globally (G5) but rare and uncommon within the state (S3). The water bulrush (*Scirpus subterminalis*) is state special concern, and is considered apparently to demonstrably secure globally (G4G5) but extremely rare and critically imperiled within the state (S1). The bog oat-grass (*Danthonia epilis*) is state special concern, and is considered very rare and local throughout its range to apparently secure globally (G3G4) but very rare to extremely rare and imperiled within the state (S1S2). The Caney Fork crayfish is state endangered, and is considered extremely rare and critically imperiled globally (G1) and within the state (S1). It is a state endemic species limited to the upper tributary streams of the Caney Fork watershed.

Strategy – A Recovery Land Acquisition grant(s) from the USFWS could be obtained to purchase tracts of land along this river corridor. Matching funds from the State Land Acquisition Fund would be necessary.

Land Protection Needs – 1,393 acres at an estimated cost of $875,000.

Potential Partner: – TWRA and TDEC.

UPPER CUMBERLAND MOUNTAINS

Location – (N336.2629, W84.3776) The Upper Cumberland Mountains project area is located approximately 40 miles northwest of Knoxville in Anderson, Morgan, Campbell, Claiborne, and Scott Counties adjacent to and in the vicinity of Royal Blue and Sundquist WMAs and Frozen Head State Park. The area is part of the Cumberland Trail Park as well.

Description – The dissected Cumberland Plateau is one of the most remote, least populated regions in Tennessee. Prior to settlement, the area was mostly forested. However, prairie-like openings breaking up the canopy were common attributes of the fire-produced forest. Other types of disturbance replaced disturbances by fire in the late 1800's and 1900's as mining and logging became common. Unlike much of the Plateau to the west, the dissected portion of the plateau has not seen extensive conversion of the native oak-hickory forest to monoculture pines nor has the area seen extensive conversion to agricultural uses although some agriculture does dot the landscape. Today, much of this region is still characterized by steep hills with narrow valleys, dominated by selective managed oak-hickory stands. Long linear openings, the result of extensive strip-mining activities of the past, are also very prominent on the landscape. Water quality and aquatic habitats diminished markedly in the early half of the past century due to poor mining techniques. However, reduced mining activity, reclamation of old strip mines, and more environmentally acceptable mining techniques in recent years has resulted in a marked improvement in the water quality of the major streams and many secondary streams in the area. Significant work remains to be done, however, to provide for the full restoration of the stream systems and aquatic habitats.

Significance – The upper Cumberland Mountains area is recognized as strategically important by at least five different conservation planning efforts. The Tennessee GAP Analysis Project has identified the project area as high in bio-diversity value with the potential for maintaining bio-diversity. The project area is recognized as an Important Bird Area (IBA) of global significance, providing habitat for at least 2 high priority neotropical migrant birds, the cerulean warbler and golden-winged warbler. A recent survey coordinated by the Cornell University Ornithology Laboratory identified the project area as holding the most significant population of cerulean warblers in the species' range. Likewise, recent surveys of the area indicate that the project area likely harbors the most significant breeding population of golden-winged warblers in the southeastern United States.

The area also provides important habitat for several other rare species, both terrestrial and aquatic. Rare species inhabiting the area include small mammals, such as the state listed Smoky shrew, common shrew, southeast shrew, bog lemming, woodland jumping mouse, and the federally listed Gray Bat and Indiana Bat.

Fish species are re-colonizing the stream reaches that have recovered from water quality degradation due to acid mine drainage. Several state listed fish species are again being found in the headwater streams such as the arrow darter, emerald darter, and the ashy darter. The federally listed blackside dace is also found in some of the headwater streams.

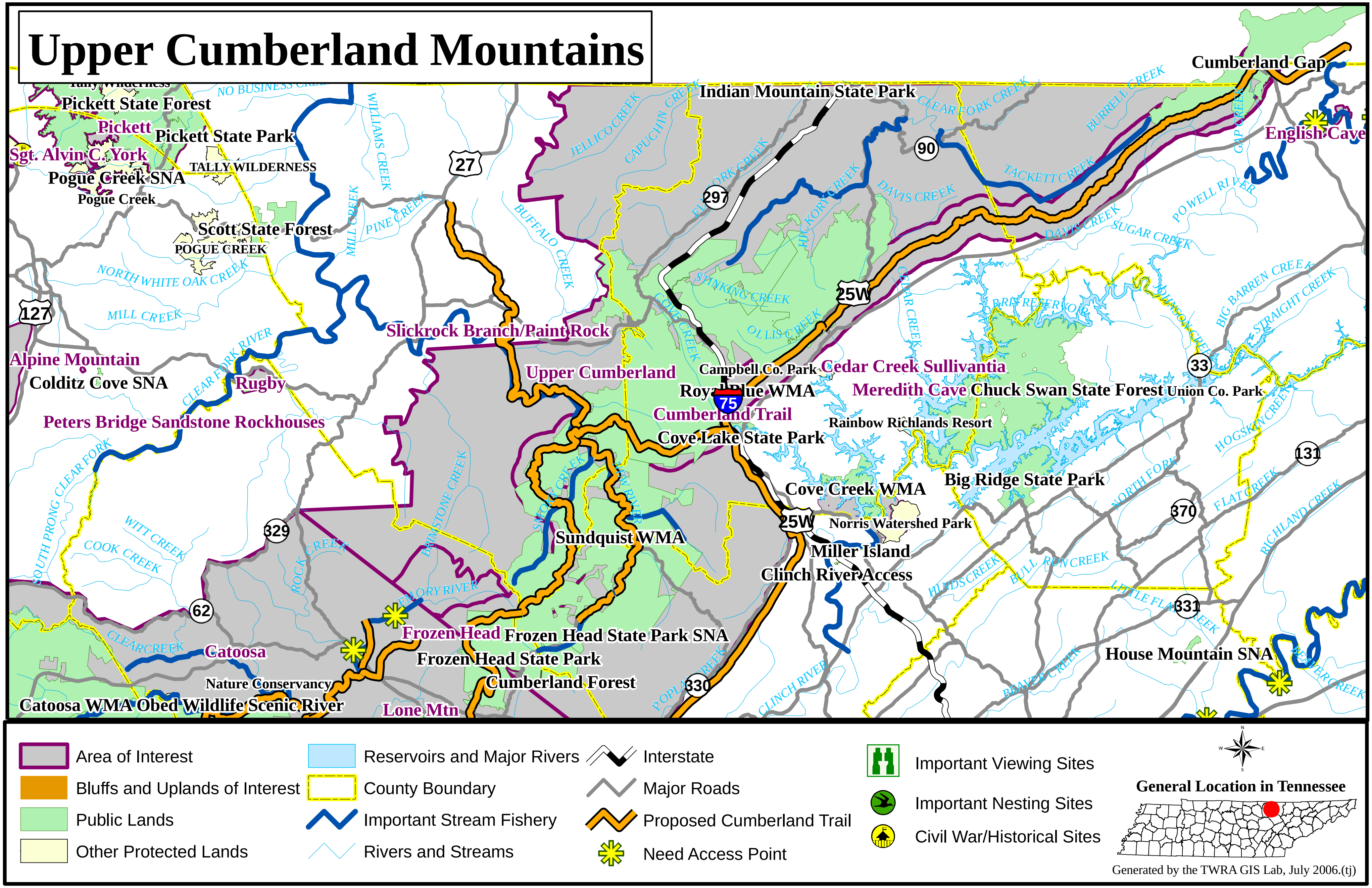
This project area is the focus of TWRA's elk restoration project, which commenced in 2000. Elk had been gone from the landscape of Tennessee for more than 135 years. The long-term objective for the elk restoration project is to establish a herd of approximately 2,000 animals on 670,000 acres in the upper Cumberland Mountains area. Additional acquisitions of property would provide key tracts of public lands in the project area, affording critical opportunities to meet the expected demand for wildlife viewing and hunting on lands in the area. In addition to elk, other potential wildlife restoration projects that could be conducted in the area include black bear, common raven, and aquatic species such as blackside dace, rosyface shiner, and arrow darter.

This area encompasses the watershed of the New River which joins with the Clear Fork River to form the Big South Fork of the Cumberland River. This river flows through the Big South Fork National River and Recreation Area and provides one of the last refuges for many of the upper Cumberland endemic fish and mussel species. Public ownership of the New River and many of its tributaries would offer additional protection to the Big South Fork of the Cumberland River and help secure its continued improvements in water quality. In addition, plans for stream mitigation activities in the area will continue to improve water quality and aquatic habitats.

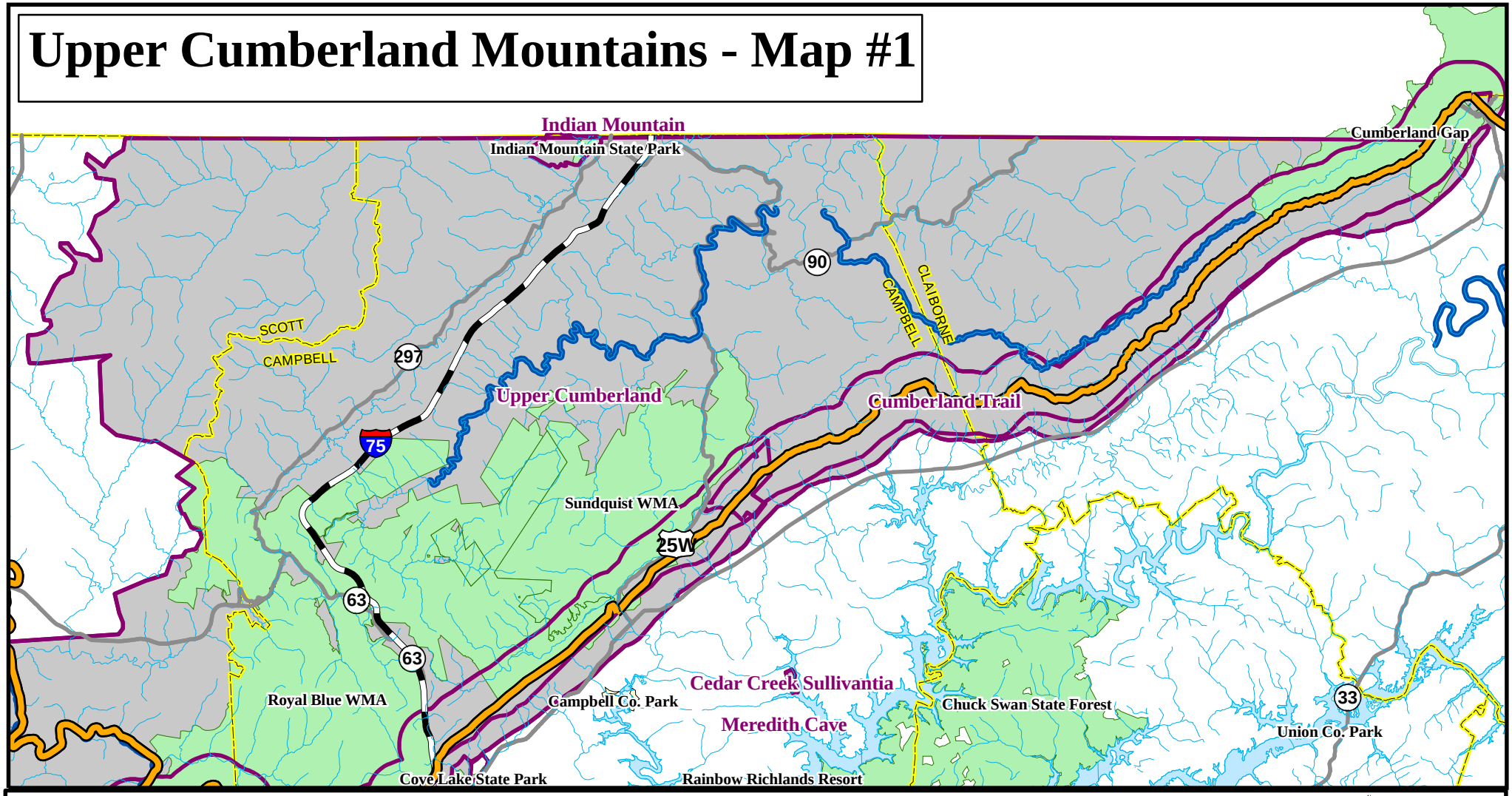
The project is strategically important to hikers using the Cumberland Trail in eastern Tennessee which runs 282 miles along the Cumberland Plateau, from Signal Point National Historic Park near Chattanooga, TN, to Cumberland Gap National Park, near Harrogate, TN. Within the Upper Cumberland Mountains area, the Cumberland Trail traverses Frozen Head SNA and Royal Blue and Sundquist WMA's.

Land Protection Needs – 100,000 acres at an estimated cost of $51,000,000.

Potential Partners – Several partners were active in the recent acquisition of the Sundquist WMA in this region and many of these same groups likely will provide important partnerships in this new proposal. TNC has already indicated an interest in protecting additional lands as well as RMEF, TCF, NWTF, QU, TWRA, TDEC, and USFWS.


Upper Cumberland Mountains
Pickett State Forest
Pickett
Pickett State Park
Sgt. Alvin C. York
TALLY WILDERNESS
Pogue Creek SNA
Pogue Creek
Scott State Forest
POGUE CREEK
NORTH WHITE OAK CREEK
MILL CREEK
Alpine Mountain
Colditz Cove SNA
Rugby
Peters Bridge Sandstone Rockhouses
Slickrock Branch/Paint Rock
Upper Cumberland
Indian Mountain State Park
Cumberland Gap
English Cave
Campbell Co. Park
Cedar Creek Sullivantia
Royal Blue WMA
Meredith Cave
Chuck Swan State Forest
Union Co. Park
Cumberland Trail
Rainbow Richlands Resort
Cove Lake State Park
Cove Creek WMA
Big Ridge State Park
Norris Watershed Park
Sundquist WMA
Miller Island
Clinch River Access
Frozen Head
Frozen Head State Park SNA
Frozen Head State Park
Cumberland Forest
Catoosa
Nature Conservancy
Catoosa WMA
Obed Wildlife Scenic River
Lone Mtn
House Mountain SNA
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

Upper Cumberland Mountains - Map #1



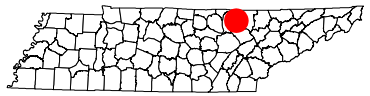
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands

Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams

Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point

Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites

General Location in Tennessee



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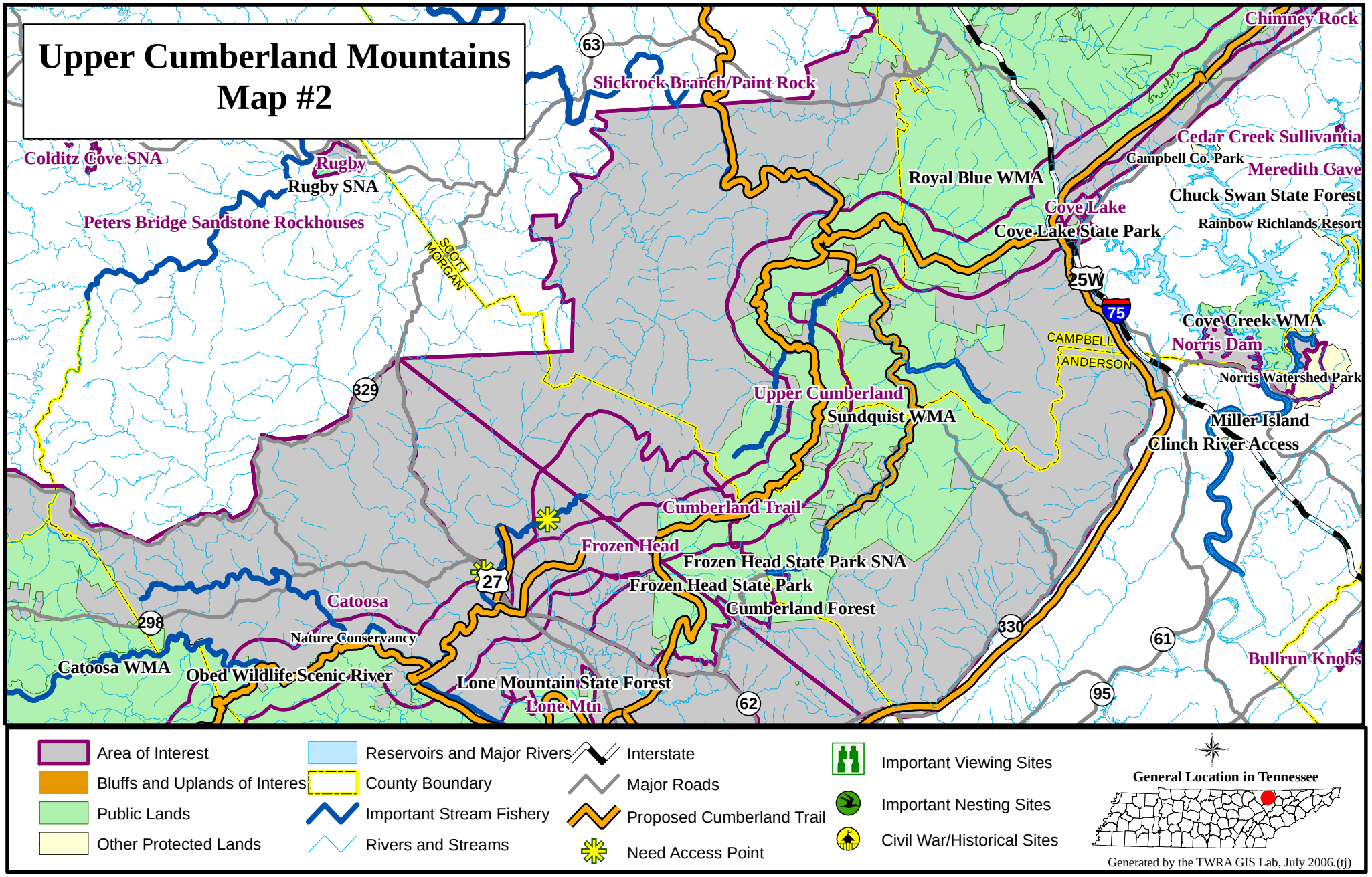

Upper Cumberland Mountains
Map #2
Chimney Rock
Slickrock Branch/Paint Rock
Colditz Cove SNA
Rugby
Rugby SNA
Peters Bridge Sandstone Rockhouses
SCOTT
MORGAN
Royal Blue WMA
Cedar Creek Sullivantia
Campbell Co. Park
Meredith Cave
Chuck Swan State Forest
Cove Lake
Cove Lake State Park
Rainbow Richlands Resort
25W
75
Cove Creek WMA
Norris Dam
CAMPBELL
ANDERSON
Norris Watershed Park
Upper Cumberland
Sundquist WMA
Miller Island
Clinch River Access
Cumberland Trail
Frozen Head
Frozen Head State Park SNA
Frozen Head State Park
Cumberland Forest
Catoosa
Nature Conservancy
Catoosa WMA
Obed Wildlife Scenic River
Lone Mountain State Forest
Lone Mtn
Bullrun Knobs
63
329
27
298
330
61
62
95
Area of Interest
Bluffs and Uplands of Interes
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

VIRGIN FALLS SNA

Location - (N35.8400, W85.3283) Virgin Falls is located in White County on the Cumberland Plateau southeast of Sparta.

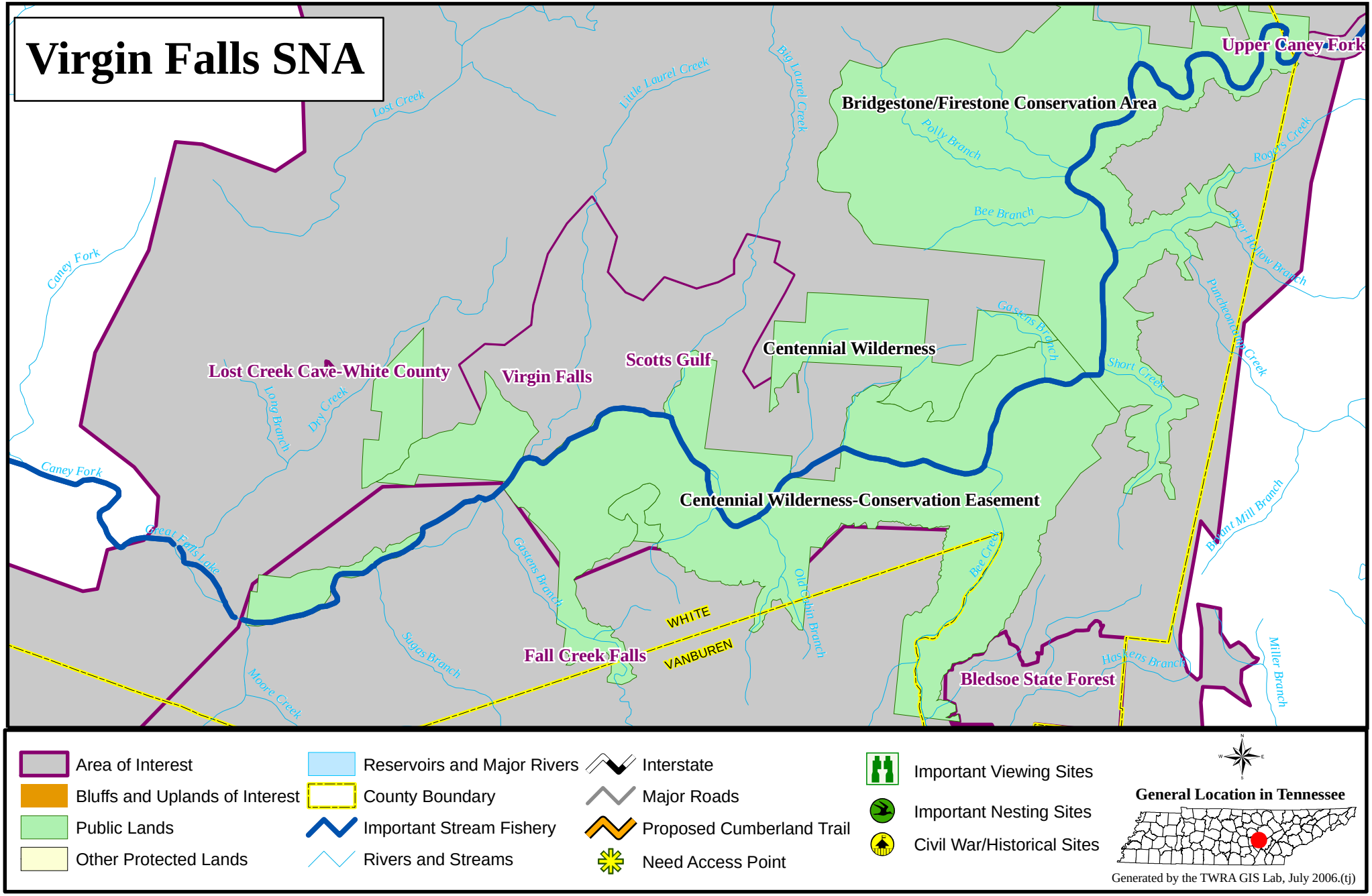
Description - Virgin Falls is currently a 317 acre privately owned SNA. It is owned by Charlie Gradner and managed by Bowater Incorporated. The natural area is named for Virgin Falls, which is formed by an underground stream that emerges from a cave that then drops over a 110 feet high cliff before disappearing into another cave at the bottom of the sink. The area is noted for its unique geological features including several other waterfalls that include Big Laurel, Sheep Cave Falls, and Big Branch Falls. Caves at Virgin Falls include Big Laurel, Sheep Cave, and Virgin Falls Cave. Sinks here include the Virgin Falls Sink and Sheep Cave Sink. Sinkholes are characteristic karst features found on the Cumberland Plateau escarpment. The Caney Fork River and its tributaries drain the area. Martha's Pretty Point provides a dramatic view of Scott's Gulf and the Caney Fork River 900 feet below. The streams are known for flash flooding, so visitors are encouraged to keep up to date on the weather conditions before hiking into the area.

Significance - Virgin Falls is located within the greater Scott's Gulf region and adjacent to the Bridgestone/Firestone Centennial Wilderness Area. The deep gorges are heavily wooded and contain ecologically diverse, various aged second growth mixed mesophytic and oak hickory forest. Much of the upland in the area surrounding the access trail is planted loblolly pine and can be restored.

Strategy - The site conservation plan for Virgin Falls includes acquisition of the natural area which is currently owned by Charlie Gradner. It also includes the remaining area that separates Virgin Falls from the TWRA-owned Bridgestone/Firestone Centennial Wilderness Area. Total acreage for this project when completed would be 3,005 acres.

Land Protection Needs - 3,005 acres at an estimated cost of $2,000,000

Potential Partners - TWRA, Bowater, and TDEC.


Virgin Falls SNA
Upper Caney Fork
Bridgestone/Firestone Conservation Area
Centennial Wilderness
Lost Creek Cave-White County
Virgin Falls
Scotts Gulf
Centennial Wilderness-Conservation Easement
Fall Creek Falls
Bledsoe State Forest
WHITE
VANBUREN
Lost Creek
Little Laurel Creek
Big Laurel Creek
Polly Branch
Bee Branch
Rogers Creek
Caney Fork
Gassens Branch
Short Creek
Long Branch
Dry Creek
Great Falls Lake
Sugar Branch
Moore Creek
Old Cabin Branch
Bee Creek
Hasteens Branch
Miller Branch
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
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Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

WASHMORGAN HOLLOW SNA

Location – (N36.3341, W85.5318) Washmorgan Hollow is located in Jackson County off Hwy 135 near Spring Creek. (See Roaring River map)

Description - Located on the Eastern Highland Rim, Washmorgan Hollow is a 73 acre natural area in Jackson County and is owned by TNC of Tennessee. This sheltered ravine has a rich and diverse flora uncommon in many other areas in the region.

Significance – Site Importance Very High (B2) – Washmorgan Hollow provides excellent habitat for plants and animals alike. The narrow winding ridges are separated by steep slopes that drop between 200 and 300 feet to the bottom of the hollow. A perennial stream tumbles over a waterfall at the head of the hollow. The stream flows out of Washmorgan Hollow into Roaring River just below the confluence where Spring Creek enters Roaring River. Both of these are state scenic rivers.

The forest in this natural area is relatively undisturbed, and birdwatchers have observed neotropical birds here that include cerulean warblers, scarlet tanagers, and worm-eating warblers. The rich slopes support red and sugar maples, large beeches, and tulip poplars. There are large sycamore trees and box elder in the hollow along the stream. The forest throughout Washmorgan Hollow is a mixed mesophytic community type as indicated by the presence of buckeye and basswood. In addition to all the many co-dominants already described, many other species of ash, oak, and hickory are a part of this forest. Unfortunately, the impact of butternut canker can be observed here as many of the butternut trees (*Juglans cinerea*) have been affected and are dead or dying.

This rich hollow with its steep slopes and mixed mesophytic forest supports a colorful spring flora. The flora includes a large population of synandra (*Synandra hispida*), which is the mint family, and uncommon in Tennessee.

Strategy - The strategy for acquisition at Washmorgan Hollow is to acquire properties within and adjacent to the site design (site boundary) for access or access control, watershed protection, and preservation of rare species and representative communities. Preservation of these of rare species and wildlife will provide educational opportunities for area colleges, universities, and the general public, and work toward preserving Tennessee's natural heritage.

Land Protection Needs – 229 needed acres at an estimated cost of $368,500.

Potential Partners – TDEC and TNC.

WEST MORRISON POND AND LOW WOODS

Location – (N35.6065, W85.9304) West Morrison Pond and Low Woods is located in Warren County on the northwest edge of the town of Morrison.

Description – The 42-acre site includes a natural pond surrounded by low, wet woods located on the Highland Rim of the Cumberland Plateau. There is a rich assortment of graminoids neatly zoned around the pond's margin with emergent vascular aquatic plants. Mannagrass (*Glyceria acutiflora*) grows along the margin of pond. The surrounding forest is primarily willow oak, red maple, and sweet gum. Near the wetland portion, there are some wet meadow openings which are dominated by graminoids. The surrounding forest is mature second growth with openings of scenic sedge and rush meadows.

Significance – Site Importance Moderate (B4) - West Morrison Pond and Low Woods contains two state-listed plant species. Cutleaf water milfoil (*Myriophyllum pinnatum*) is listed as threatened in Tennessee and based upon the few number of occurrences is considered extremely rare and critically imperiled in the state (S1). Sharp-scaled mannagrass (*Glyceria acutiflora*) is listed as special concern and is very rare and critically imperiled (S2).

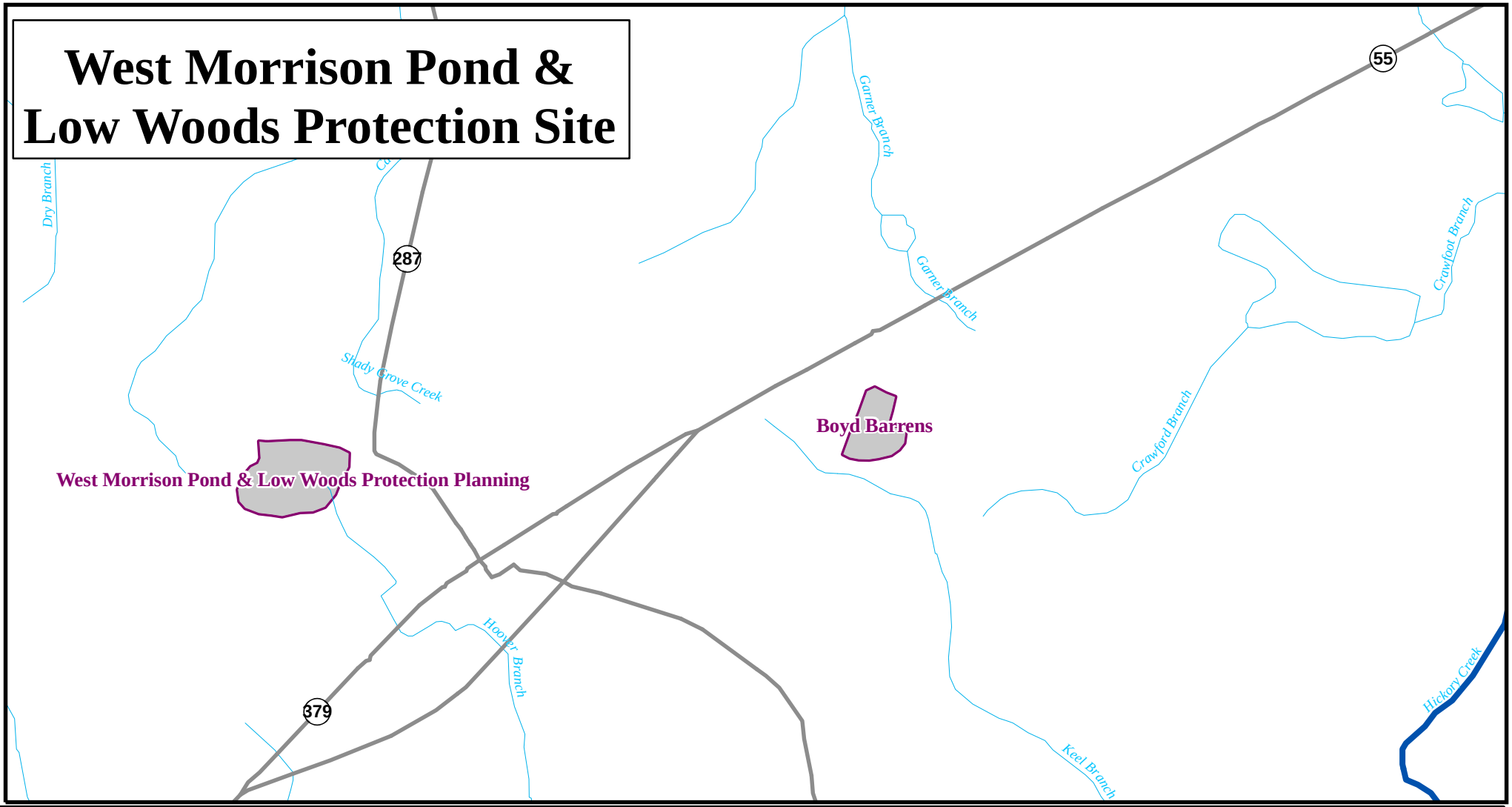
Although not currently on Tennessee's rare plant list, waterpod (*Hydrolea quadrivalvis*) was not known to occur in Tennessee until it was documented at this site. The status of this species is under review in Tennessee and it may be listed in the future. The range of waterpod includes the Atlantic and Gulf coasts of the southeastern United States, but Tennessee, where it is only known from four counties, is the only inland state where it occurs. All three species are obligate wetland plants.

Strategy – Since the meadow and forested portions are wetlands, TWRA wetland acquisition funds could be applied.

Land Protection Needs – 43 acres at an estimated cost of $57,000.

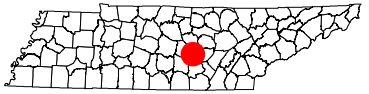
Potential Partners – TWRA, TNC, and TDEC.

West Morrison Pond & Low Woods Protection Site



Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites

General Location in Tennessee



Generated by the TWRA GIS Lab, July 2006.(tj)

WHITE BUIS CAVE & COONSIES CREEK CAVE

Location: - (N36.5028, W83.4987) White Buis Cave (aka Upper Coonsies Creek Cave) is located in Claiborne County 1.6 air miles SSW of Cedar Grove Church, in a large sink adjacent to Coonsies Creek, at an elevation of 1130 feet. Coonsies Creek Cave is located approximately 0.4 miles SW of White Buis Cave, and is the likely resurgence of the stream occupying the latter (See Powell River Preserve map).

Description – The geologic horizon for these caves is Rob Camp Limestone. According to the Tennessee Cave Survey (2005), the entrance of Coonsies Creek Cave "is an eight feet high by 10 feet wide opening in the base of a small cliff. A good sized creek issues from the cave. The cave trends North 55 degrees East for 200 feet and varies from 10-20 feet wide and 6 feet high. Most of this portion of the cave is waist deep in water in normal flow. Then the cave turns South 31 degrees East for 60 feet, followed by another turn to North 61 degrees East for 250 feet. This portion of the passage is 9-14 feet wide and 3-9 feet high.

At this point the passage forks. The left fork continues as a wide, low muddy passage for 400 feet. Average width is 8 to 15 feet and the height is 2-7 feet. At the end of this passage, a narrow water filled crevice and a near siphon opens lead into a large passage and deep pool. The pool is 5 feet deep during low water. Down stream, the water siphons in a number of narrow fissures. Upstream the creek continues above a 10-foot waterfall. The passage at this point is 12 feet wide and 4-8 feet high. About 160 feet upstream the passage widens to 30 feet, then narrows to 8 feet wide and siphons in 10 feet of water.

Going downstream from the waterfall and siphon, a narrow, rocky passage heads South 65 degrees West, and meets the creek again. This passage is 4-8 feet wide and 3-4 feet high. At 120 feet from the resurgence of the creek, the passage pinches at "Turtle Siphon," a 6" air space opening that opens into the main downstream entrance passage 180 feet from the fork. The cave floods heavily during wet weather (Dunaway, 1973)".

Significance – Site Importance High (B3) - White Buis Cave contains a large gray bat (*Myotis grisescens*, S2, state and federally endangered) maternity colony, with as many as 13,400 adults and 6,800 pups observed in 1991. The most recent estimate indicates a population of 17,000 individuals (Harvey, 2002).

Strategy – White Buis Cave and Coonsies Creek Caves should be evaluated for acquisition and protection. A forested buffer should be maintained or established immediate to the cave mouths, and the sinkhole that drains to White Buis Cave should be protected to ensure water quality in both caves.

Land protection needs – 7 acres at an estimated cost of $24,000.

Potential Partners: – TDEC, TWRA, TNC, and TN Cave Survey

WHITE COUNTY WETLANDS COMPLEX

Location – (N36.0381, W85.5040) White County Wetlands complex is located in White County off Hwy 111 north of Sparta. The site is surrounded in part by John England Road, Mulligan Road, Walnut Road, and Breeding Road.

Description – This site contains a variety of wetland habitats from Eastern Highland Rim Swamp forest dominated by oaks and red maple, to open pond (Anderson Pond-TWRA) surrounded by forested wetlands, and wet meadows. Many of the rare plants which occur here are found in the wet meadow habitat that have open creeks and ditches which drain the site. Some portions (even where rare plants occur) have cattle in the stream and are disturbed. The wet meadows east of Hwy 111 and near the bend in Breeding Road contain *Xyris ambigua, X. jupicai, Eryngium integrifolia, Spirea tomentosa, Rhexia mariana, R. virginica, Mimulus ringens, Vernonia altissima, Pyrrhopappus carolinianus, Impatiens capensis, Eupatorium perfoliatum*. Amphibian searches in the forested tracts would likely yield rare species. The complex includes approximately 1,423 acres.

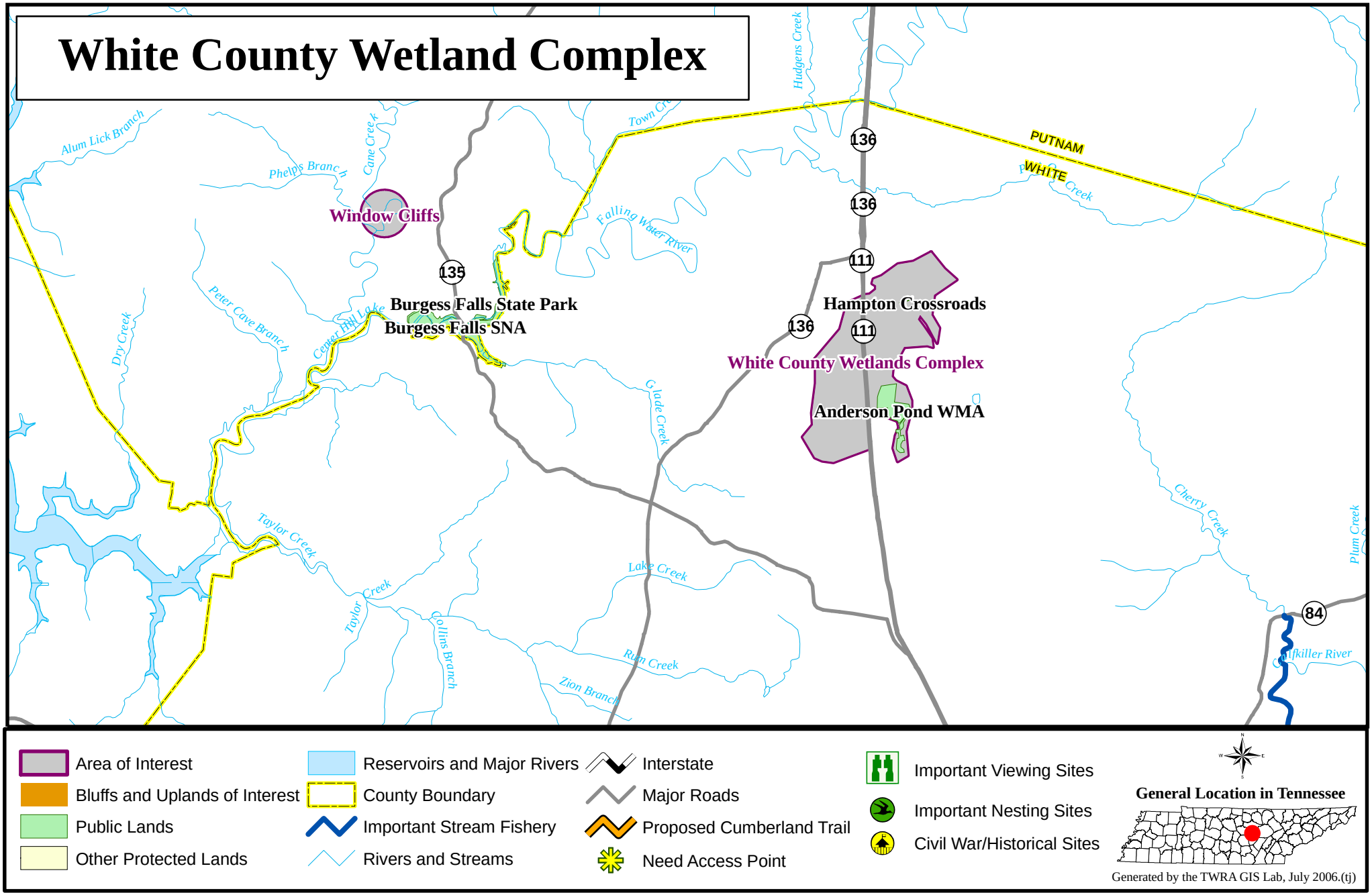
Significance – Site Importance High (B3) – The site is comprised of three distinctly different but hydrologically connected wetlands: Hampton Crossroads Swamp, Overcup Swamp, and Anderson Pond (owned by TWRA). At least 13 state listed species have been documented, including at least 11 S1 and S2 species. Additional inventories would likely yield more plant, animal and rare community records. Anderson Pond was proposed as a National Natural Landmark in 1982 due to its being "…one of the few relatively undisturbed, permanently wet, karst ponds remaining n the Eastern Highland Rim Subsection". Additionally, in 1979 a published report on the results of extensive core sampling provided the first record of ecological and floristic chronology since the time of glaciation for the Southeastern United States, covering the previous 20,000 years. All three wetlands together provide an exceptional wetlands complex containing numerous wetland types and rare species.

Strategy – Acquisition and restoration, where needed, of all tracts within the primary site design. Several tracts are already under varying levels of protection: one tract of 12.56 acres in Hampton Crossroads Swamp is held under a mitigation permit, one tract of 10.03 acres is under a pending mitigation permit, while another tract of approximately 10 acres is held by TDOT as a mitigation site; one tract of approximately eight acres of Overcup Swamp is a mitigation site; while 63.97 acres of Anderson Pond is held by TWRA.

Land Protection Needs: – 1,350 acres at an estimated cost of $835,000.

Potential Partners: – TWRA, NRCS, TNC, TDEC, USFWS, NAWCA, and Tennessee Tech University.

White County Wetland Complex



WHITES CREEK WATERSHED

Location – (N35.8010, W84.8070) Cumberland, Rhea and Roane Counties, approximately 20 miles south of Crossville.

Description - The Whites Creek watershed lies on the eastern escarpment of the Cumberland Plateau. The eastern escarpment is characterized by steep forested slopes and high velocity, high gradient streams. Local relief is often 1000 feet or more. Vegetation community types in the ravines and gorges include mixed oak and chestnut oak on the upper slopes , more mesic forests on the middle and lower slopes (beech-tulip poplar, sugar, maple-basswood-ash-buckeye), with hemlock along rocky streamsides and river birch along floodplain terraces

Significance - Whites Creek is one of the highest quality streams on the eastern escarpment of the Cumberland Plateau. There is virtually no development in the drainage leaving the forested slopes intact. TDEC considers Whites Creek a reference stream for water quality. Remote, rugged terrain and ownership patterns have limited wildlife survey efforts in this watershed. The Tennessee Wildlife Action Plan (TWAP) identified a diverse mix of ecological systems within the watershed (Table 1). This diversity of available habitats indicates that additional survey work would yield even higher species diversity than represented in tables 2 and 3 (especially for amphibians, reptiles, and mammals).

Lands Protection Needs – 7,000 acres at an estimated cost of $9,500,000.

Potential Partners - TWRA, TDA, TDEC, TNC

Table 1. Significant ecological systems identified by the TWAP as occurring in the Whites Creek watershed.

South-Central Interior Mesophytic Forest
Southern and Central Appalachian Cove Forest
Appalachian Hemlock-Hardwood Forest
Allegheny-Cumberland Sandstone Box Canyon and Rockhouse
South –Central Interior Small Stream and Riparian
Cumberland Seepage Forest

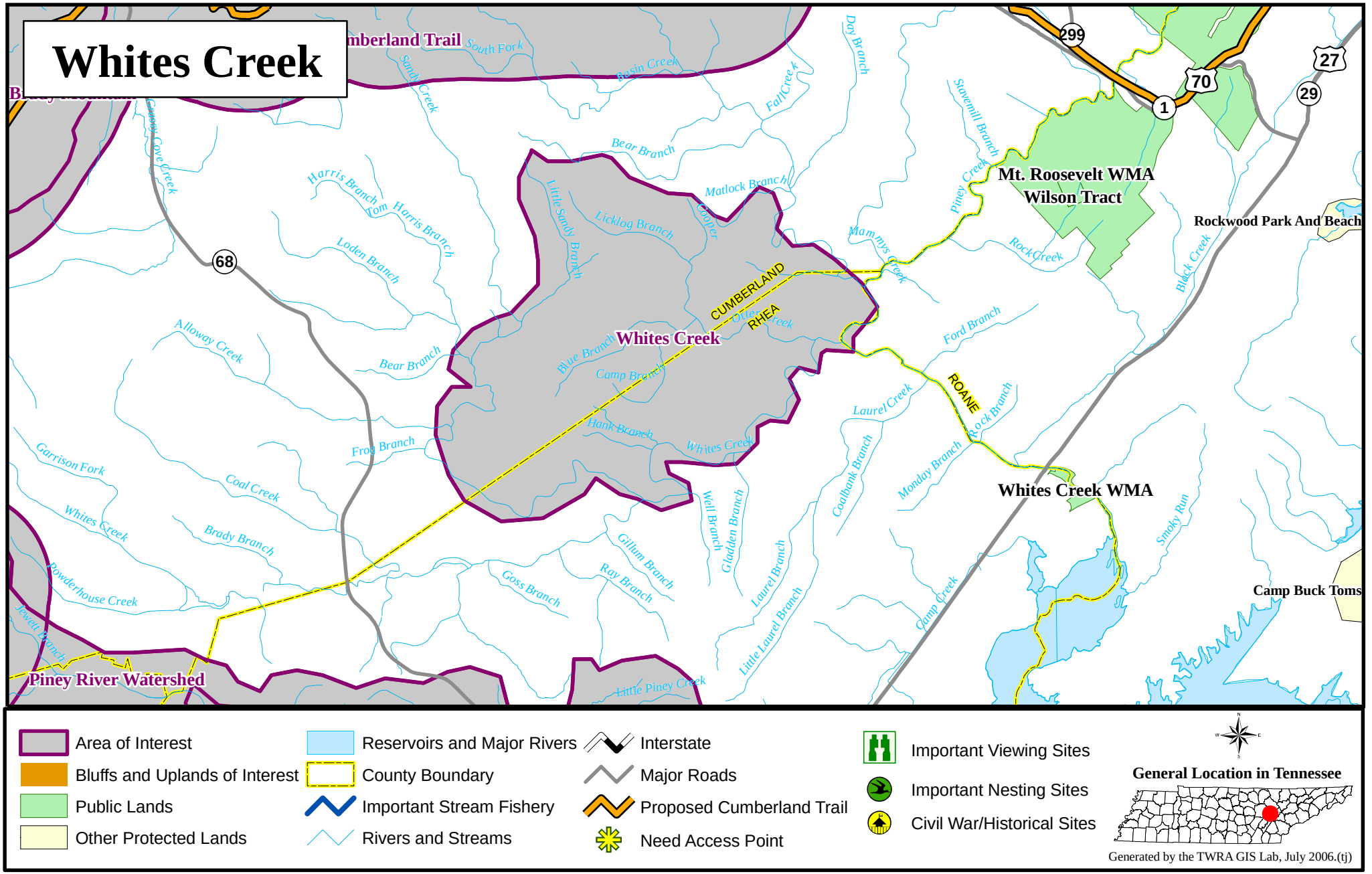
Table 2. Aquatic species identified by the TWAP as occurring in the Whites Creek watershed.

TaxaGrp	Common Name	Fed Status	State Status	GCN*
Amphibian	Black Mountain Dusky Salamander			Yes
Fish	Tangerine Darter		D	Yes
Fish	Tennessee Dace		D	Yes
Fish	Spotfin Chub	T		Yes

Table 3. Terrestrial species identified by the TWAP as occurring in the Whites Creek watershed.

TaxaGrp	Common Name	Fed Status	State Status	GCN*
Amphibian	Green Salamander			Yes
Bird	Cerulean Warbler	MC	D	Yes
Bird	Golden-winged Warbler	MC	D	Yes
Bird	Whip-poor-will			Yes
Bird	Yellow-throated Vireo			Yes
Bird	Yellow-throated Warbler			Yes
Bird	Red-headed Woodpecker			Yes
Bird	Worm-eating Warbler			Yes
Bird	American Woodcock			Yes
Bird	Yellow-billed Cuckoo	(PS)		Yes
Bird	Eastern Wood-pewee			Yes
Bird	Black-throated Green Warbler			Yes
Bird	Bald Eagle	LT	D	Yes
Bird	Hooded Warbler			Yes
Bird	Wood Thrush			Yes
Bird	Kentucky Warbler			Yes
Bird	Acadian Flycatcher			Yes
Mammal	Allegheny Woodrat		D	Yes
Mammal	Rafinesque's Big-eared Bat	MC	D	Yes
Reptile	Northern Pine Snake	MC	T	Yes

*GCN – Species of greatest conservation need


Whites Creek
mberland Trail
South Fork
Basin Creek
Sandy Creek
Fall Creek
Dry Branch
Stavemill Branch
Piney Creek
Mammys Creek
Rock Creek
Black Creek
Bear Branch
Matlock Branch
Cooper
Licklog Branch
Little Sandy Branch
Harris Branch
Tom Harris Branch
Loden Branch
Green Cove Creek
299
1
70
27
29
68
Mt. Roosevelt WMA
Wilson Tract
Rockwood Park And Beach
CUMBERLAND
RHEA
ROANE
Whites Creek
Otter Creek
Blue Branch
Camp Branch
Hank Branch
Alloway Creek
Bear Branch
Frog Branch
Ford Branch
Laurel Creek
Rock Branch
Monday Branch
Coalbank Branch
Whites Creek WMA
Garrison Fork
Coal Creek
Whites Creek
Brady Branch
Powderhouse Creek
Jewett Branch
Gillum Branch
Ray Branch
Goss Branch
Well Branch
Gladden Branch
Laurel Branch
Little Laurel Branch
Camp Creek
Smoky Run
Camp Buck Toms
Piney River Watershed
Little Piney Creek
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
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Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

WILLIAMS TRACT

Location – (N36.1235, W85.2682). The Williams Tract is located approximately ¼ mile southwest of Monterey in Putnam County, off of I-40, north of Monterey Lake. (See Alpine Mountain map)

Description – This 609 acre site is located on the western escarpment of the Cumberland Plateau. The property extends from the Plateau Rim to the base of Stamps Hollow in the Highland Rim. Plant communities vary considerably at this site. Dry upland sites are of the mixed pine-oak-hickory type while open sandstone areas are dominated by herbs such as golden aster (*Heterotheca graminifolia*), little bluestem (*Schizachyrium scoparium*), and orangegrass (*Hypericum gentianoides*). Hemlocks and white pine characterize the sheltered stream corridors along the Rim. Other significant natural features contained on this site include sandstone rock houses, waterfalls, sandstone arches, caves and a pond.

Significance – Site Importance Moderate (B4) - In addition to the dramatic escarpment vistas this site provides, it also contains habitat for three state listed species: Lucy Braun's white snakeroot (*Ageratina luciae-brauniae*), smoky shrew (*Sorex fumeus*), and southeastern shrew (*Sorex longirostris*). Lucy Braun's white snakeroot is state threatened and is considered very a rare and uncommon plant in the state (S3). Both the smoky and southeastern shrew are listed as in-need-of-management, which means additional information is needed relating to their distribution, abundance and management needs. Both species are considered secure within the state, though rare in parts of their range (S4). The presence of rock houses, caves, waterfalls, and sandstone arches further add to the significance of this site.

Strategy – Acquisition of properties within and adjacent to the site would provide watershed protection, preservation of rare species and their associated habitat, and preservation of representative communities and natural features of the Plateau Rim.

Land Protection Needs – 610 acres at an estimated cost of $500,000.

Potential Partners – TDEC and TWRA.

WINDOW CLIFFS SITE

Location – (N36.0630, W85.6079) The approximately 200 acre site is located in Putnam County one mile north of Burgess Falls SNA and 1.5 miles outside of the Center Hill Reservoir boundary. The ridge making up Window Cliffs is between meanders of Cane Creek, west of Boiling Springs School. (See White County Wetlands Complex map)

Description - The property consists of steep to sheer limestone bluffs and cliff lines. The upper exposed portions of the cliffs have window-like erosions in the narrow limestone ridge line. The ridge is in a meander of Cane Creek, upstream of Burgess Falls.

Significance - Site Importance High (B3) - The cliffs and bluffs of Window Cliffs support a hemlock mixed forest community which is rare on the Eastern Highland Rim of the Cumberland Plateau. The site is a rare scenic site given the unusual geological formations or window-like erosions in the upper limestone ridgetop. In addition to an unusual community of eastern hemlocks, a globally rare forest community known as the Appalachian Bluff White Cedar Woodland (*Thuja occidentalis*/*Carex eburnea-Pellea atropurpurea* woodland) has been documented from the site. A major component of the community, northern white cedar (*Thuja occidentalis*), is a state threatened and uncommon (S3) plant species. At this site it is noteworthy that a state threatened rare plant is the primary component of a forest community. The occurrence of northern white cedar at Window Cliffs is noted as the western most occurrence of its disjunct southern distribution. Window Cliffs is only the second known occurrence of northern white cedar on the Eastern Highland Rimu. Two other rare plants known from Window Cliffs are plains muhley (*Muhlenbergia cuspidata*) and the special concern listed, state imperiled (S2) mountain honeysuckle (*Lonicera dioica*). Window Cliffs is the only known site in the state for plains muhley. Because of occurrences of rare plants and rare community, Window Cliffs has a high biodiversity significance (B3), and is a significant geological and scenic site.

Strategy - The strategy for acquisition at Window Cliffs is to acquire properties within and adjacent to the site design (site boundary) for access or access control, watershed protection, and preservation of rare species and representative communities. Preservation of these rare species and wildlife will provide educational opportunities for area colleges, universities, and the general public, and work toward preserving Tennessee's natural heritage.

Land Protection Needs – 147 acres at an estimated cost of $160,000.

Potential Partners – TWRA and TNC.

WOLF, FARMER & CAVE COVES

Location – (N35.0519, W86.0259) Wolf, Farmer & Cave Coves are included in the Carter Caves system which is located on the Cumberland Plateau in Franklin County. It is east of Hwy 16, and six miles south of Rowe Gap. (See Carter Mountain map)

Description - The Wolf, Farmer & Cave Coves system consists of three contiguous coves each separated by a small cradle and covers about 1,530 acres. Wolf Cove is a sink hole cut about 200 feet below the adjacent Farmer Cove. The southern portion of this site lies within Walls of Jericho. Wolf Cove is mostly undisturbed because of the steep slopes.

Significance - This is a highly significant site because of the occurrence of Tennessee cave salamander (*Gyrinophilus palleucus*) and many rare plant species. These include bristle-fern (*Trichomanes boschianum*), roundleaf fameflower (*Talinum teretifolium*), goldenseal (*Hydrastis canadensis*), and American ginseng (*Panax quiquefolius*). This site also represents unique geologic and topographic features and is considered scenic.

Strategy - The strategy is to acquire the area outside of the Walls of Jericho project area that includes the Wolf, Farmer, and Cave Cove properties.

Land Protection Needs – 1,530 acres at an estimated cost of $950,000.

Potential Partners - TNC, TWRA, and TDEC.

WOLF RIVER WHITE CEDAR SLOPES

Location – (N36.5933, W85.1058) The site is located on a northwest facing slope, south of the confluence of Wolf River and Lick Creek, about 0.5 mile north of Parker and 2 miles south of the Tennessee/Kentucky state line in Pickett County. (See Cordell Hull State Historic Park map)

Description – This 45-acre site is located on the Eastern Highland Rim of the Cumberland Plateau. A portion of the site consists of a narrow floodplain along the Wolf River. The northwest facing bluff contains a series of steep slopes carved by a large spring that originates near the top of the bluffs. The site contains stands of northern white cedar (*Thuja occidentalis*). Further inventory of this plant community could likely result in its classification as a Northern White-cedar Limestone Seepage Woodland, which are northern white cedar woodlands on cliffs, associated with seepage over limestone or dolomite.

Significance – Site Importance High (B3/B4) - Northern white cedar is listed as threatened and uncommon (S3) in Tennessee. Along the Wolf River Bluffs, it is the dominant overstory component in some stands. The occurrence of northern white cedar along the Wolf River Bluffs is noteworthy in that most of the occurrences in Tennessee occur further east in the Ridge and Valley Physiographic Province. Northern white cedar is much more common in the northeastern United States and Tennessee is near the southern end of its range.

The state-threatened spreading false foxglove (*Aureolaria patula*) occurs on the rich northwestern facing slopes and along the floodplain of the Wolf River. An additional rare plant, starflower false Solomon's seal (*Smilacina stellata*), has a broad range in the North America, but is considered extremely rare and critically imperiled (S1) in states at the southeastern edge of its distribution (Arkansas, Kentucky, Maryland, and Tennessee) and is considered rare in two other states. The species is listed as endangered in Tennessee and there are only two known occurrences from the state.

Strategy – Forest Legacy is a possible funding source for this site's protection. A portion of the site is within the reservoir boundary for Dale Hollow Lake, and partnering with the U.S. Army Corps of Engineers for additional protection should be explored.

Land Protection Needs – 46 acres at an estimated cost of $58,000

Potential Partners – TNC, USACE, and TDEC.